


# DESIGN

## AND THE DECORATION OF PORCELAIN

BY  
HENRIETTA BARCLAY PRIST



KERAMIC STUDIO PUBLISHING COMPANY  
SYRACUSE  NEW YORK





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Mary Plummer  
3100 Spruyns Dwyck  
N. Y. C.





**DESIGN**  
**FIND THE DECORATION OF PORCELAIN**  
BY  
**HENRIETTA BARCLAY PAIST**



**KERAMIC STUDIO PUBLISHING COMPANY**  
**SYRACUSE ————— NEW YORK**



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## FOREWORD



**B**EFORE presenting in the following chapters, the problems for practical study, a resume of the conditions under which this particular craft has labored since it was first transplanted to this soil, may be interesting and enlightening to the student of to-day for whom the path has been made smooth and comparatively straight.

Why is it that Ceramic Art, or more specifically, china decorating, while the first of the applied arts to be introduced into this country, is the last to be recognized by the Art World and admitted into the Art Schools as a part of the curriculum? Why has China Painting been so long the "Cinderella of Art?" Why this dissension in its ranks and this prejudice in the Art World? There is no end to the discussion of the subject or of criticism from artists in other lines, but what of the cause?

To-day, Art, as applied to industry, is in a more flourishing condition than ever before. Our Art Schools have departments of *Applied* as well as *Academic* Art. Design and its application to the different crafts is a part of nearly every school curriculum from the lower grades to the high school. There has been a general revival of the industrial Arts in the Old World and a rapid growth and appreciation in the New. Books on the subject are numerous and valuable and in our own particular craft, in many of the studios, the study of design and its application to porcelain go hand in hand as they should. Not so the condition thirty years ago, when the art of decorating china was introduced into this country. Unlike the countries of the Old World where the fine Arts are the natural outgrowth of the Industrial Arts of the people, in America, the word Art had come to mean Pictorial Art only. Art education was dominated by ideas and methods of the Pictorial Artists. Everything had come under this influence and was measured by the Pictorial principles of representation.

The Industrial Arts came as an after thought and it is but recently that we have become aware of what industrial art means to a people, as a training in appreciation for the Fine Arts.

"Art appreciation does not spring full-grown," but is of slow growth and comes of association with the artistic in our daily life. This, as a people, we have not had. We were transplanted to this country full-grown and our struggle for existence became so strenuous that the art instinct was for a time checked and held back by the commercial. Emotions which in people of older countries of quiet occupations found expression in beautifying the objects of daily life, were, in us, checked or turned into other channels and we became a nation of *commercial importance* at the expense of the *artistic*. This lack of training on the part of our people was responsible for the slow growth of the Fine Arts in this country. The appreciation had not been cultivated, and to quote Walter Crane, in "The Claims of Decorative Art:" "It is certain that painting and sculpture, 'The Fine Arts,' as commonly understood, cannot reach perfection where the multitudinous arts that surround and culminate in them are not also in vigorous health."

The introduction of our craft into this country was premature. There had been no preparation. We knew little or nothing of design, the foundation of all crafts. So it grew to be a fad, depending for its inspiration on the factories of the Old World, copying the styles of these and striving to overcome technical difficulties. Consequently when in response to a demand for technical instruction, representatives of some of these factories, of which flower painting was the chief characteristic, came to this country, we followed blindly, and nearly lost our way in the labyrinth of beautiful flowers that were made to bloom on the surface of our white china.

So we copied and our pupils in turn copied us and we became "degenerate copyists of copies." Then, to paint a rose or a bunch of grapes "so natural that it could be picked" was our highest ambition and the original intention of the beautiful objects upon which we inflicted this naturalism was eventually lost sight of and they became objects of art (?), instead of articles of service. There was no system of orderly thought in the decoration. We acquired a technical facility at the cost



of other qualities. A piece of china was to us the same as canvas to the pictorial artist. In a short time we became so prolific that exhibitions, first local, then national, were planned and it was then that our position was forced upon us by the art schools who refused to open their doors to us for the purpose of exhibition; their reason being that china painting as it was practiced could not be classified; that we, in short, were neither "fish, flesh, nor good red herring." This imputation, as a class, we resented and continued to paint our flowers and fruit *au naturel*, holding our exhibitions independent of any art body. Thus while we grew tremendously in numbers and experience from a technical standpoint, the general standard of the work, except in individual cases, improved little; in fact it seemed, in the indulgence of naturalism and the lack of restraint, both in color and in the abundance of decoration, to be going from bad to worse. A few earnest students, however, touched by these arguments, betook themselves to the art schools, to the museums and art galleries, for study and research. Thus while, as almost inevitably happens, some became mere "cribbers from the past," nevertheless the spirit which prompted them became the leaven which has been slowly but surely working, and to-day, because of their pioneer work and the following they have gained, the art schools of the land are now open to us for exhibition. In the meantime (our sister crafts having been introduced into this country under happier conditions), we have found ourselves, not as *china painters*, but as *china decorators*, to be a part of that great Industrial Army which is making itself felt in every department of the home all over the land; and our craftsmen, accepting their limitations and glorying in the possibilities are happier and more content than when trying to cover the whole field of art (and incidentally the whole surface of the china).

We have found in our study of the principles of design that "it requires our best faculties, whether we treat things flat or in the round" and the joys of imitation are forgotten in the joys of creation; in making nature subserve to our ends, instead of trying to see how closely we can imitate nature on surfaces where the drawing of a natural motif is necessarily distorted. There is, however, still a large percentage of the

devotees of this craft who are unconvinced of their position in the art world, or who have not as yet had the subject presented in the right way, and the teacher of Keramic Art, before she can proceed to the technical part of instruction must first convince her students of the difference between Pictorial and Decorative Art; between Imitative and Creative Design. Owing to past influences, environment, or a lack of early artistic training on the part of the student, her efforts even yet are not always crowned with success. It becomes the obligation of the instructor to point the way, to call attention to the guide posts (the governing principles), to stimulate the imagination and to strengthen the judgment by the logic of her reasoning; not to require of the student any particular *style* or allow any slavish following of her ideas.

Design is a larger subject than we at first realize. It opens the eyes to beauty and order in everything. It is not alone for the artist; it is a study of universal principles which underlie all creation. It furnishes logical reasons for things hitherto considered of the emotions; and art does not lose by this process; on the contrary it gains permanence. If we would raise our craft to the highest standard and avoid the merited criticism it has received in the past, we must realize that we are studying to conform to universal principles, we must bring our work within the same province and under the same laws which govern all art; realizing this, the study of design assumes importance and becomes an absolute necessity.

There is not one of the crafts so intimate, so much in daily use in the home, as ours. Should we not then as workers in this most useful craft, give to the work the same serious study as do those who are trying to express themselves in other materials.

Design does not teach any particular style of decoration, does not deal in fads, but with principles, and the sooner we understand and conform to these principles, the better for us and our craft.

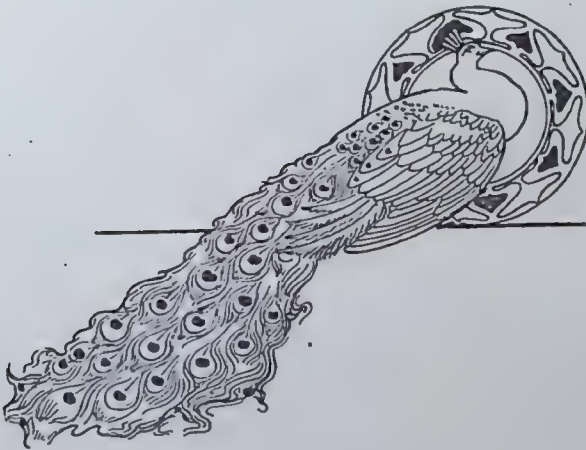
As we learn by doing, far more than by reading and thinking, the exercises suggested in this book are of value in impressing upon the mind the laws under which we will work and will go farther toward convincing one of the reasonableness of the



system than much reading or many lectures. The course of lessons here presented has been in practice as a correspondence course since 1910, and a few of the units of design used for illustration are the corrected work of students taking the regular course.

The arguments presented are largely quotation from the best thought on the subject, and the problems stated have been selected from the large subject of design as having the most direct bearing on our craft—the overglaze decoration of porcelain—and are presented to the decorator as a short cut and an incentive to further study, rather than as something final and complete in itself; and because of the importance of this craft and the large following it has attracted this little book seems justified and is sent out in answer to a growing demand for help in this direction, with the hope that it may be a means of steering some workers over a properly charted course into the Port of Legitimate Art.

HENRIETTA BARCLAY PAIST.







## PROBLEM I

### RHYTHM AND BALANCE—BORDERS

"We study design to stimulate the imagination; to strengthen the judgment and to learn to put our thoughts into orderly form—to express ourselves in a way that will be clear and coherent. Any discussion which aims to define the principles of design and their practical application must tend toward a saner, more artistic production and a more intelligent and discriminating judgment: and a judgment is of little value unless backed by a logical reason."  
—*E. A. Batchelder.*

"There are two sides to art, *aspect* and *adaptation*; the one seeking to imitate planes and surfaces, accidental lighting, phases and effects; the other *constructive*, depending for its beauty on its quality of line, form and tint, seeking typical rather than individual forms and ornamental rather than realistic results."—*Walter Crane.*

THE object of design is to enrich and beautify forms already constructed. Hence, *form* itself is of *primary* importance; the *decoration secondary*. Remembering this, we will not be in danger of loading an object with ornament but will try by ornamentation to render the form more beautiful, accenting its structural points and in every way conforming to the original intention.

Restraint in ornamentation is one of the great lessons to be learned by the decorator. Mistakes are often made in the attempt to beautify by superadded ornament, unrelated to the object or use for which the piece is intended, instead of treating it as a natural outgrowth of the piece; and unless ornament is organic in this sense, we would better be without it, for the problem of the designer is not merely to apply ornament to an object but to consider the object as a part of the design. The shape should suggest the enrichment, and the ornamentation be an integral part of the whole and not appear as an afterthought. There should be no line to tell where the construction ends and the ornamentation begins.

There is a difference between mere decoration and design; therefore as china decorators, we should identify ourselves as much as possible with the craftsman who begins the work and

should use discrimination in the selection of the shapes to be decorated, choosing them for the beauty of line and proportion. We cannot hope to decorate intelligently and appropriately until we have cultivated the appreciation for form. However, design, considered apart from the object it is to enrich, is subject to the same laws of construction and proportion, governed by the same principles as the finished whole. We will take up the subject in this way: developing first the ornament; then, choosing our shapes, will study the outlines, the amount of decoration it will bear, the proper placing of the same according to the laws of space and mass adjustment, and from the knowledge gained from the discipline of the earlier exercises will endeavor to enrich the shapes by a decoration that will be suitable and in harmony with the form.

"Design is the bringing of abstract ideas into tangible form—the orderly expression of an idea." It is a sign language in which lines are the words.

The first necessity in design is *definition*. The elementary aesthetic principles underlying design are: Rhythm, Balance and Harmony. *Rhythm* has been defined as "that relation of lines, tones and areas which carries the eye through all the details of the design." It is the concerted movement in design. All nature is full of Rhythm in sound, color and form and is felt just as strongly in design as in the measured time or the regular repetition of a sound in music. Repetition is the simplest form of Rhythm, but "mere repetition does not constitute a design." We must have inter-relation of parts (Illustration, Figure 1) a close relation in order to be conscious of the movement. The perpendicular line considered alone has no movement: it is rigid and suggests support or restraint. The oblique line has movement: it is the line of force and, when accented by the addition of the horizontal line, the movement is very strong (See illustration, figure 1). We have in the combination of these three lines all that is necessary to construct an abstract design—a complete set of tools with which to work out our problems. In the matter of Rhythm we must exercise restraint. Too rapid movement quickly becomes tiresome. So we will be careful not to over-emphasize in this, particular. "Structural movement is classic and like all things



classic improves with acquaintance." We may have rhythm of lines, of tones, of areas and of color. Motion and color are what first interest a child in toys.

*Balance* is "that opposition of attraction which holds the eye at rest." It is "that principle of arrangement by which attractions are equalized around a given center or on either side of a line." There are two types of Balance: Bisymmetric, the balance of symmetry, where there is the same degree of attraction on either side of a vertical line; and "Occult" or "felt" balance, the opposition of unequal attraction; the proper adjustment of parts unequal in size and shape. This is a higher type of balance, more involved, more difficult to perceive and presupposes a more subtle sense of balance. "*Unequal attractions balance each other in inverse ratio to their power of attraction.*" In Balance as in Rhythm, we have that of lines, of tones, of areas, and of color.

*Harmony means Unity.* It is that relation of the component parts which makes them mutually dependent, and may relate to lines, tones, areas, color or all of these elements combined. "A design must be an organic whole; it must agree with itself." To be harmonious also, it must "exactly fit its conditions." "Perfect fitness and beauty should always accompany each other, and as a matter of fact they do, as "beauty is really organic" and has been defined as "the most varied unity, and the most united variety." "The perfect design is one in which no line could be added or taken away without destroying the unity of the whole." To secure unity in a design we seek *first, concerted movement; second, an adjustment of the parts that will impart a sense of equilibrium—of repose; third, to have all parts mutually dependent.*

"The real test of a design is adaptability either to position or material and no decoration has a right to the name, which does not fulfill these conditions"—i.e., the design which would be suitable for a fabric or wall paper would be unsuitable for porcelain and vice versa. There are obvious reasons, as well as a natural feeling, in favor of a decoration for close inspection being small in scale and finely wrought. This is a point that is being overlooked in much of the popular decoration of to-day, some of the designs being more suitable for the

Plate I

Elements                      Repetition                      Interrelation



The Balance of Symmetry



Fig. 3.



Fig. 4.

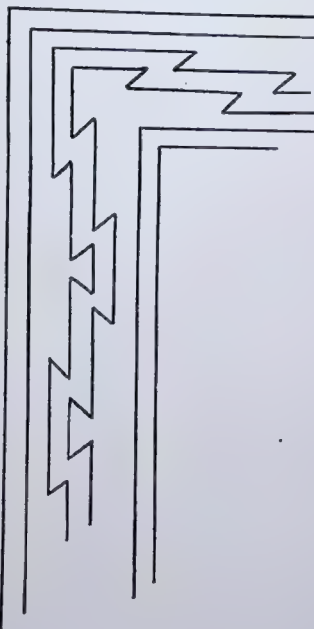
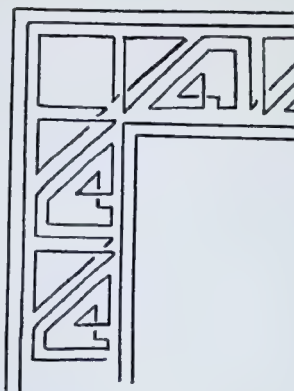


Fig. 5.



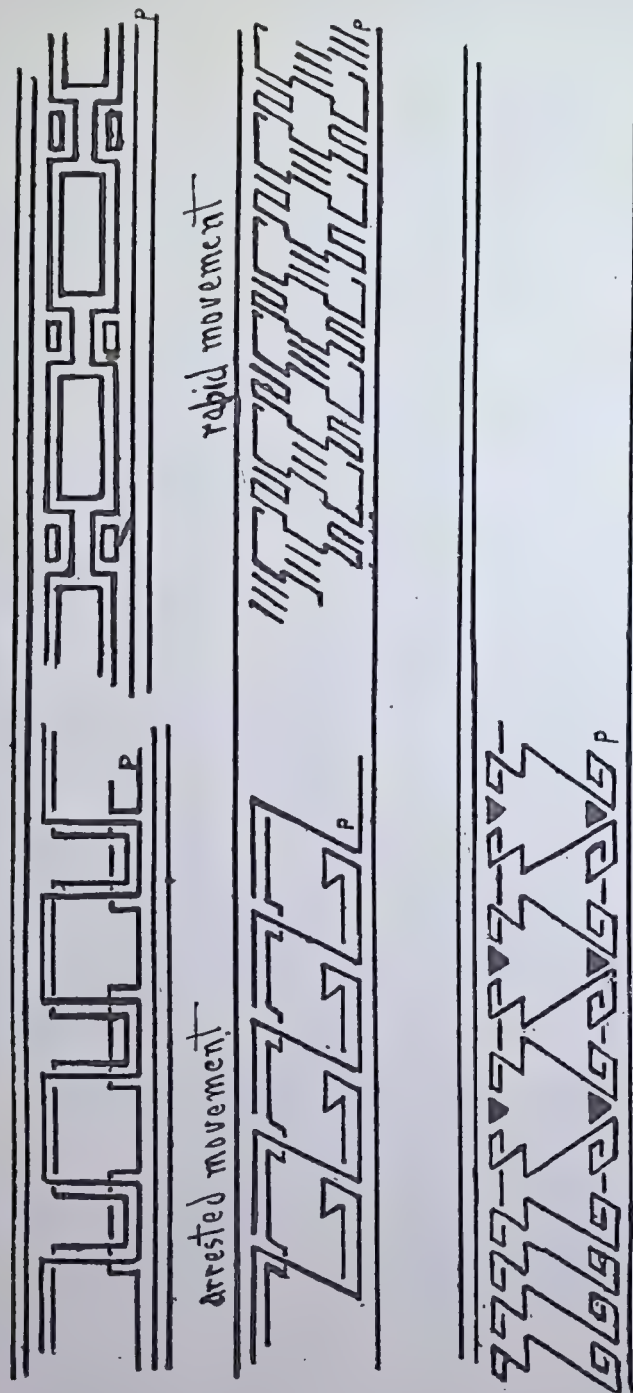
limitations of weaving than for the exquisite surface of porcelain where such limitations are removed. A design that can be handled successfully with one material may be wholly impractical for another; so in the construction of a design we must consider first, the craft, then the use of the particular object and the tools and materials with which we will have to execute same. We must have "constructive strength combined with beauty, and governed by adaptability of purpose."

To construct a design which will measure up to these requirements necessitates a system. The system on which a design is built bears much the same relation to it that the skeleton does to the human form, and a knowledge of the skeleton is considered indispensable to the student of the figure. But beware of "dry bones." The study of line, tone arrangement and method is of great value, but it is not all of design. The value of a problem lies in the "thought it frames and the discipline involved in working out the thought." It all depends on the designer and the use he makes of the system; on the inventive faculty of his mind. With this warning we will proceed to a study of the system; to the development of a design according to the principles just defined. We will begin with the elementary line and the abstract design. These, while complete in themselves also form a skeleton on which to construct the more complicated designs. When we have become familiar with the elementary principles, we will proceed to clothe our skeleton, using nature forms for inspiration and suggestion. In the meantime, the exercises given are intended to impress upon the mind the underlying principles so that we may "proceed by a process of reasoning" and not depend wholly upon the emotions, hoping thereby to "cultivate a judgment based on reason and logic." From the abstract line border we will proceed by easy stages to the more complex problems.

#### EXERCISE

Our first point is to illustrate Rhythm. This we will do by the repetition of a line motif to produce a border design and at the same time we will try to demonstrate the two types of balance. We will use only the lines of the right angle triangle





(perpendicular, horizontal and oblique). We have stated that repetition does not constitute a design, that we must have inter-relation, a mutual dependence. There must also be variety in order to have interest. The lines must be so grouped as to have a dominant mass—the space between the masses constitutes the background. The pleasing arrangement of space and mass constitutes the design. We have in illustration I, Figures 1 and 2, a balance of symmetry, where the attraction is equal on both sides of a vertical axis. The symmetrical unit is illustrative of strength, is dignified and strong. There is less movement than in the other type of balance, where the parts in opposition are unequal in size and shape. In Figure 3 we have an illustration of "Occult" balance, where the parts while unequal are so disposed as to produce a sense of balance. Make six border designs, three demonstrating symmetrical and three un-symmetrical balance. Try turning the corners (See Figures 4 and 5) without losing the characteristics of the design. In this way we will lead up to our problem under lesson II.

## MATERIALS

Drawing Board	Japanese Water Color Paper	A Pan of charcoal Gray
Thumb Tacks	Bottle of Water-proof black	Paint
Cross-ruled Paper	India Ink.	An Eraser (soft)
Tracing Paper	An H. B. Pencil	A Plate divider
	Two Brushes—No. 2 for lines	A small compass
	No. 7 for washes	







## PROBLEM II

### TILE DESIGNS

"The interest of a design should be clear. An inarticulate mumbled product is no more creditable in a design than in speech."—*E. A. Batchelder.*

"The spontaneity of undeveloped faculty does not count for much; it carries us only a little way. Let no one believe that without study and practice in design he can recognize and appreciate what is best in design."—*Denman Ross.*

"We have to choose between the absolutely original and the copied historic. We must know how to get away from the latter before we can produce the former."—*Samuel Howe.*

TO get away from the tendency to adapt historic ornament we must get back to first principles; studying not alone the styles of the different periods but the spirit behind them—the system which produced the best of them. Ornament should be "begotten in love;" should be the natural expression of the artist, governed by a knowledge of the principles underlying all art.

The "Art Nouveau Movement," so called, was merely a revolt against the slavish copying of historic styles; and while directly or indirectly responsible for much that is undesirable, has also been productive of much good.

This spirit in this country, coupled with a sane and sincere study of art principles, is fast evolving—we can almost say has already evolved—a type that is or shall be purely American. Architecture to-day means something more than the adapting of old world types to our needs. It means the creation of a type or types that shall fit local conditions and specific needs. The relationship between architecture and design consists chiefly in the control of constructive line and form—a fundamental necessity of fitness and harmony.

To resume the study of our system: under Problem I we have defined, and in our border designs have demonstrated, Rhythm, Balance, and the Harmony or Unity that results from these two first principles, from the pleasing arrangement of line, space and mass. We have shown some ingenuity in

FIG. 1

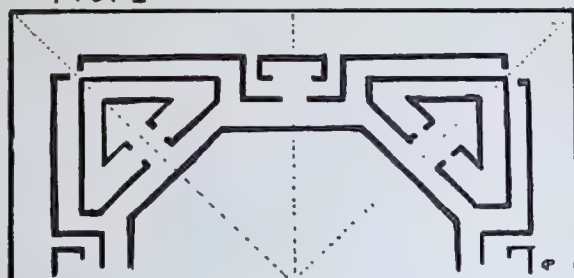


FIG. 2

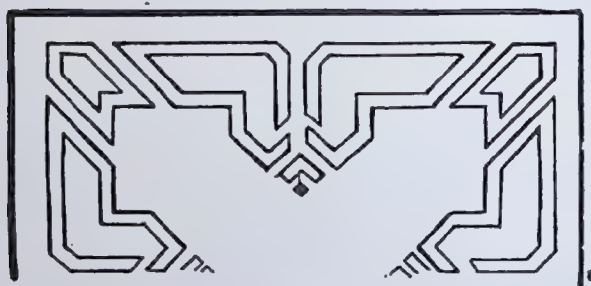
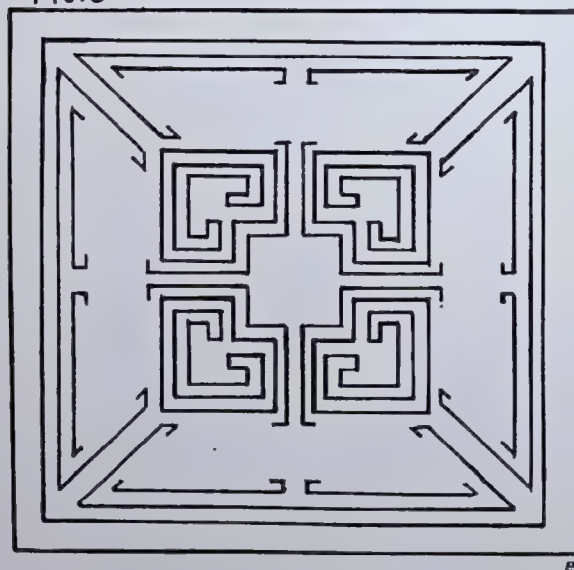
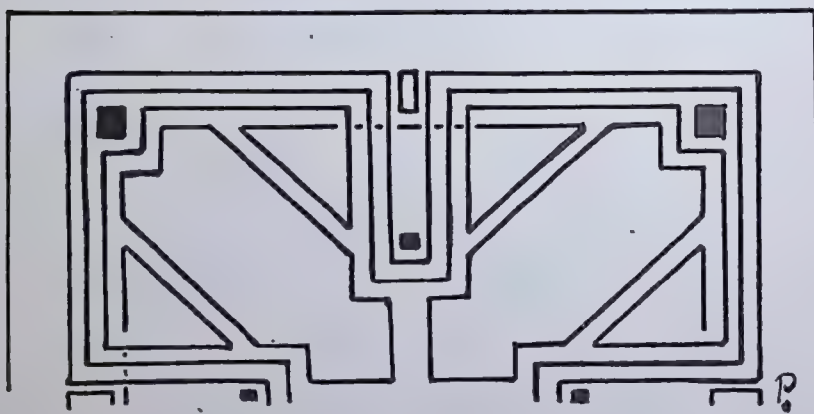
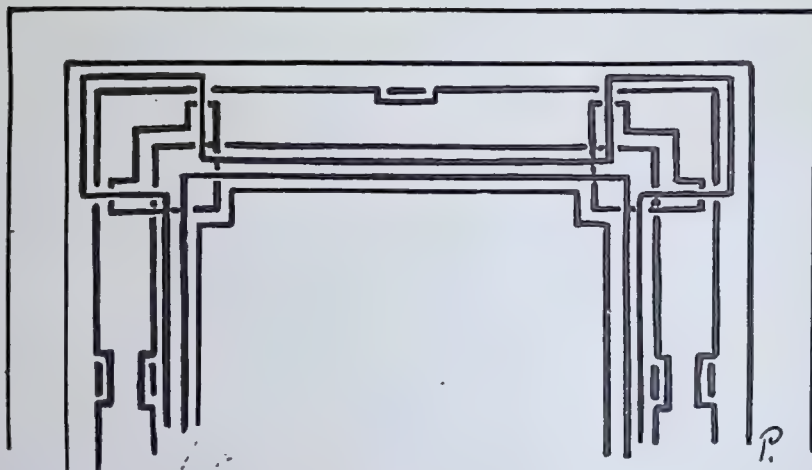


FIG. 3





the turning of the corner, thereby laying the foundation for Problem II, which is the development of a design for tile, or, in abstract terms, the breaking up of a six-inch square, showing a pleasing distribution of space and mass, of rhythm and harmony of line. We can by practice in the arrangement and grouping of lines throw the interest wherever we choose. This is splendid discipline and gives us a definite idea with which to work. The limitations are the same as in Problem I (the lines of the right angle tri-angle), but the two lines perpendicular and horizontal alone are sufficient to construct a perfectly good design of this type. You may use all three or not, as you choose. After drawing the square, draw a line at the diameters, then two lines from corner to corner. This will form a skeleton as a guide, and all lines must be parallel with the lines of this skeleton; at least with the boundary line and those of the diameter. If the oblique line is used, this will be parallel with the lines from corner to corner. From this starting point, under the limitations imposed, we will endeavor by the grouping of lines to throw the major interest to different parts of the square. In Figure I, we have thrown the interest into the corners, having only sufficient interest at the diameters to connect the corners, to pull them together, enabling the eye to travel easily from one part to another. In Figure 2, the attention is called to the diameters, having only sufficient interest at the corners to draw the design together. In Figure 3, the major interest is around the center, but we still have sufficient interest at the outside to make the design complete within the area. In constructing the designs leave at least one-half inch margin from the boundary line. Work for variety, but variety in unity. Work for rhythm and the inter-relation of lines or parts, trying to show individual thought in the construction. It is, after all, the thought that counts. System we must have, but system alone is not enough. "We may fill our minds with the terms of design and proceed to use these as a child uses blocks," but we are not working for geometric designs for a parquette floor. We wish our designs to have something more of interest, something of our own personality, some touch not found in other designs of a similar nature. We wish to express *our* thought. We cannot express what is not



in us, hence the designs of one person will be more interesting than those of another. We cannot all attain to the same degree of merit in our designs. Some of us have more to express than others, but we will take it for granted that each of us has something to tell—some possibilities that this opportunity will bring out. It is the aim of the teacher in criticising the designs of those who are taking a regular course, to search for and to discover, if possible, the thought of the student; to make the most of the possibilities in each design, rather than to impose her own personality or thought. In this way the teacher can draw out the diffident and encourage expression, often convincing the student that she has “builted better than she knew.” Assuming that the design represents something at least of the personality of the designer, we will have as many types of design as we have people. There will be the dignified design, full of restraint; the design full of life and movement; the design that sparkles from little touches here and there as a character does with flashes of wit; there will be the loosely constructed design and the design well knit—closely constructed. Designs showing clear and definite thought and those in which the thought is involved are now evident. And so on with variations and combinations of these characteristics, showing the possibilities of the students and making an endless and intensely interesting study for the critic.

“Art is long.” And yet the principles governing it are few. The wise teacher will insist only on the close observation of the *principles*, leaving as much margin as possible for originality, for individual interpretation.

#### EXERCISE

Make six designs, two with major interest at the corners, two with major interest at the diameters, and two with major interest at the center, having enough of interest at the other points of construction to make of the area a complete design. Observe the limitations of Problem I (lines of the right angle triangle). This will insure harmony when working within the square. Our next Problem will deal with curves, as far as is necessary to adapt our abstract borders to the circle. These will be considered as designs for plates.





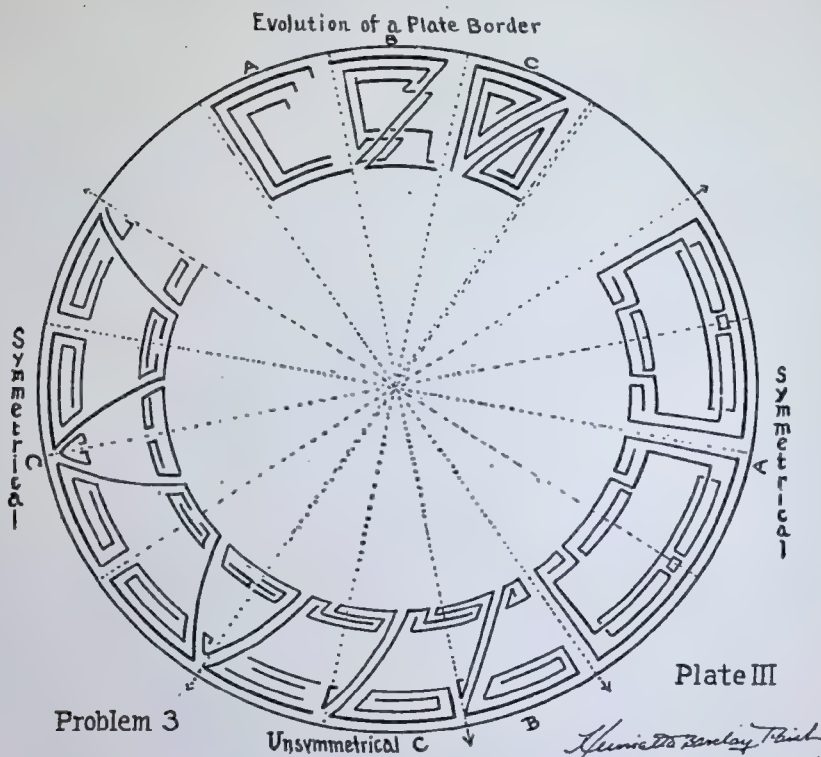
### PROBLEM III

#### CURVES

"Square and angular patterns strike us at once by their emphatic and rigid logic; while the curved type appeals to our sense of grace and rhythm."  
—*Walter Crane.*

"A curve has Rhythm and Balance—is subject to the laws of proportion. There is no better device for charting its course than the hand, with an eye for compass and a clear head at the top."—*E. A. Batchelder.*

THUS far we have been dealing with spaces angular in shape, and for the sake of simplicity have used only the straight lines to demonstrate the principles involved in construction. "Line as the basis of ornament forms, as it were, the primal decorative unit." Repeated in parallels we have the type of the simplest and yet the most widely used patterns, but the designer is not satisfied "with parallels alone." "He needs other decorative units to make him happy." Also we have other spaces to fill besides the angular, notably the circular space. This brings us at once into the realm of the curve, the most important, and the curves we usually think of under this subject, are the two named by Mr. Ruskin, the "finite" curve, the curve of the circle, and the "infinite" curve or the curve of force, which gradually unfolds itself but never returns to the point from which it started. There are many other kinds of curves, and as our sense of rhythm develops we will be able to determine which curve is most appropriate for the problem in hand, but the *curve sense* must and may be cultivated if we have it not. The square and the circle give us patterns that form universal decorative units; they furnish the skeleton or system on which we build an endless variety of designs. For practical application of this problem we will take the plate for our circular space. Instead of the angular space of the straight border, we now have a space which, if the circle is divided regularly, forms a shape which we can liken to a piece of pie (see illustration), the top line being a curve and the other two, the radial lines, converging toward a common center. For the sake of harmony we will now change our straight horizontal line to a curve, and the



perpendicular to the angle of the radial lines (see illustration). For the present and for the sake of definiteness we will content ourselves with this simple solution of the problem (A). In (B) we will add the oblique line to the other two; first as a straight oblique, and then as a curve (C); This will impart to our design a strong sense of rhythm or movement, and the harmony is more complete as the curved line is more consistent in a circular design than the angular or straight oblique; but as before stated we must not over emphasise in the matter of movement, or the design will grow tiresome. A counter movement will steady and help in procuring the repose that is so desirable in design.

#### EXERCISE

Construct a skeleton (see illustration) and proceed to develop a border, using first the lines parallel with the boundary



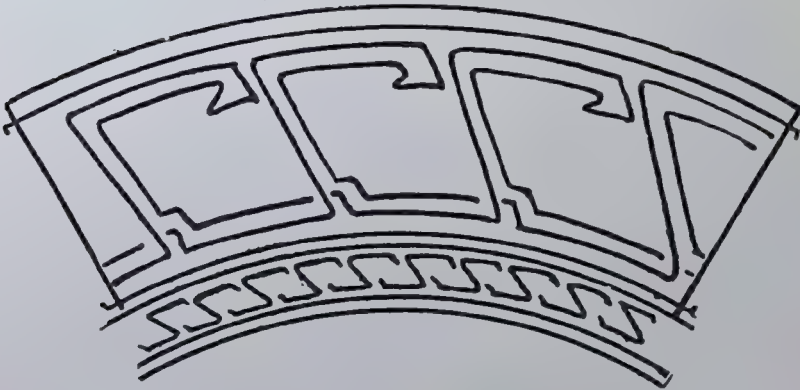
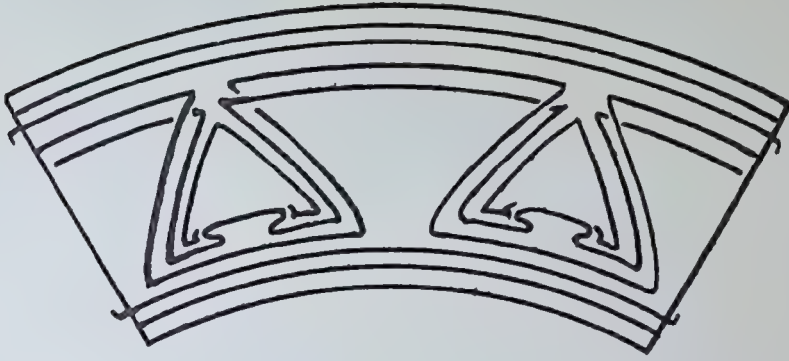
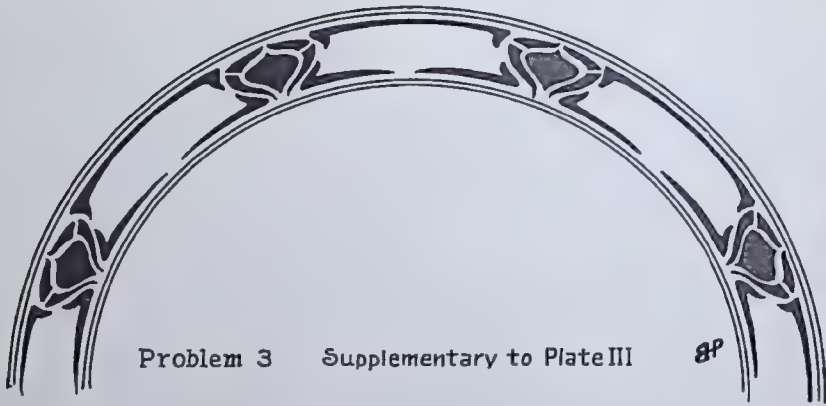


Plate Borders showing good division of the space

and radial lines. Try then the introduction of the straight oblique, gradually working into the curved and evolving a more graceful type of design in perfect harmony with the shape.

Work for Rhythm, demonstrating the two types of Balance, and, if these principles are adhered to, Harmony will result.



Problem 3      Supplementary to Plate III

8P

## PROBLEM IV

### USING MOTIFS FROM NATURE

"There is little in nature that is ready made to the hand of the artist. A master piece of art is what it is by virtue of something which was not in the natural motif, but in the artist's treatment of it."—*Louis F. Day.*

"The designer in the application of his art to material use, must put away from him all the allurements of imitative naturalism, except in so far as it may be subordinated to the effect and purpose of the whole."—*Waller Crane.*

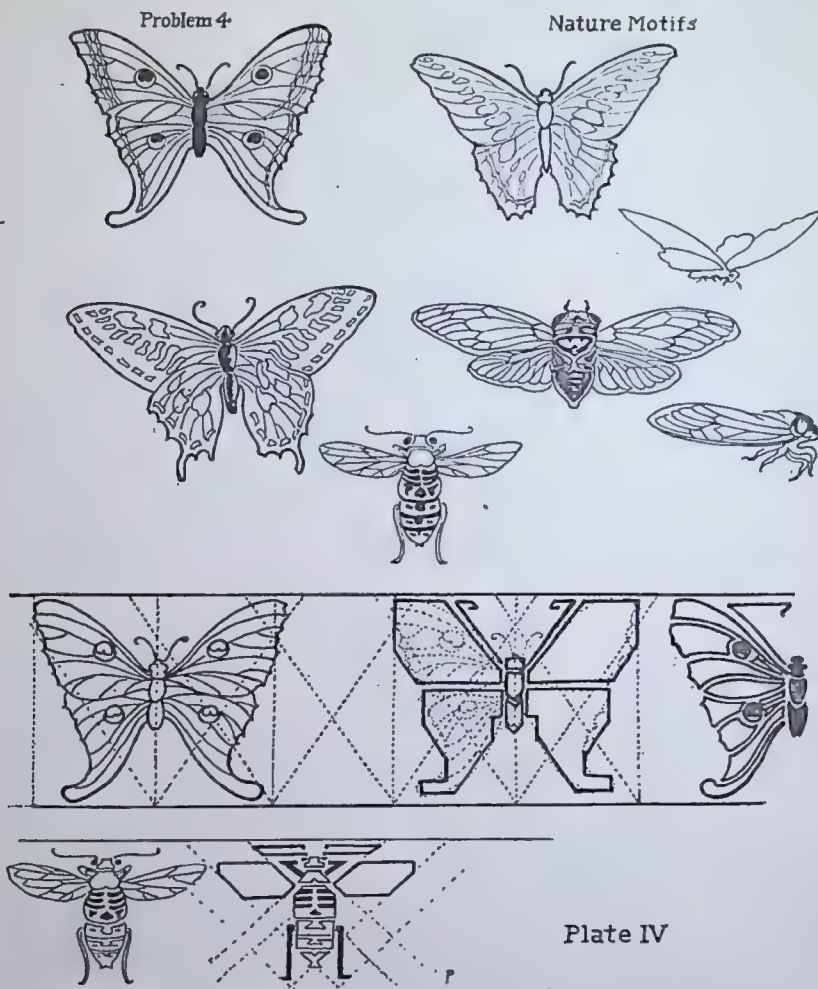
"We accumulate studies from nature and attempt to conventionalize these on paper for our purpose. We study historic ornament and adapt motifs or units to our use. What we need is a better understanding of the principles of construction. The details of the design will come."—*E. A. Batchelder.*

AS designers we will, of course, appeal largely to nature for inspiration. "To the artist, nature has hidden meaning not revealed to the untrained mind"—she has been the inspiration of artists for all ages—but in approaching nature we must remember that "the imitative impulse is quite different from the inventive," that "the function of art, and especially of design, is to represent and suggest but not to imitate." We must try to grow away from the "picturebook stage of understanding."

To think of nature in terms of design is the problem which confronts us. Long continued study of the principles should precede the conventionalization of plant form. We *can* dispense with the natural motif, but with nature as an ally, our imagination is stimulated and strengthened. Before going to nature for inspiration and assistance, we should acquire through practice the habit of working from the point of view of design. To seek help from nature before one has acquired this point of view, is like trying to solve the higher problems of mathematics before one has mastered addition, subtraction, multiplication and division. We must have our portfolio of drawings and we may study nature from an analytical point of view, but to the question so often asked by the student, "what motifs are best for design?" we would answer, it matters



little what the motif chosen, providing you have an understanding of the principles of construction, of the laws governing



Steps in conventionalization

space and mass relation. Much as we love nature forms and hard as it is at times to give up the identity, we must acknowledge that "the beauty of a design depends in the final analysis, not on the motif chosen or the pictorial interest it may have,

but on the structural fitness to purpose and the relation of lines, tones and areas."

Problem 4

Nature Motifs

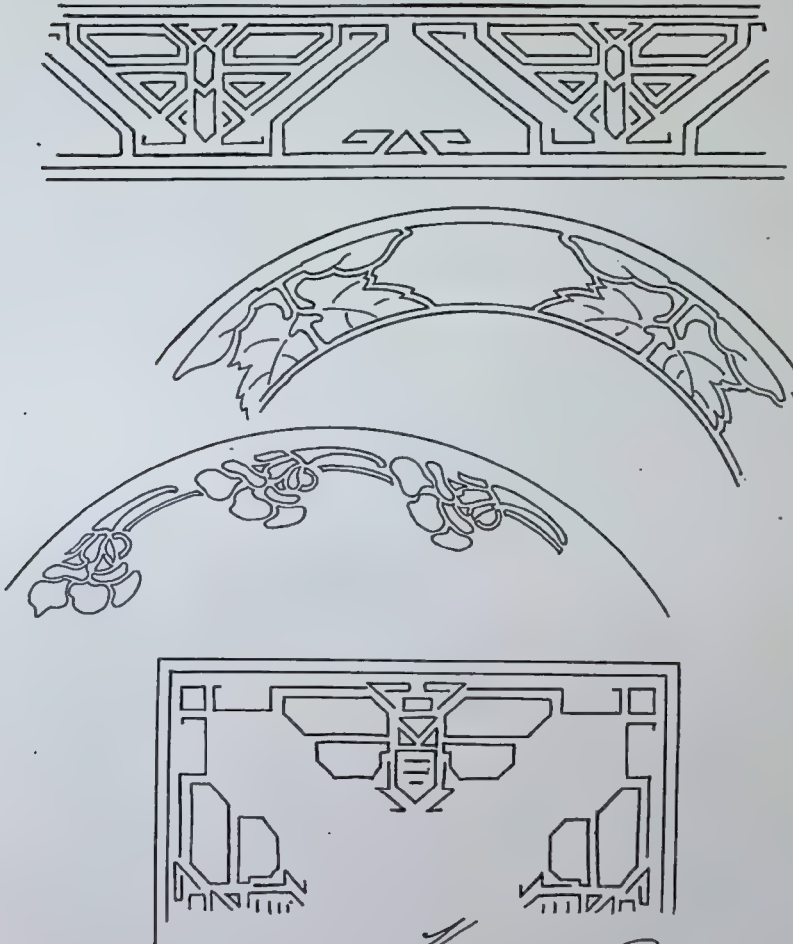
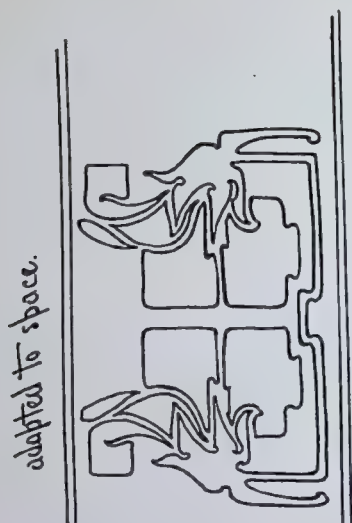


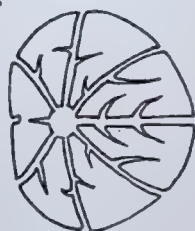
Plate V

*Alvinia Barber Paint.*

"Nature study may furnish thought for expression, but design furnishes expression for thought." Nature furnishes the raw material, not ready made design. We must take our ideas to nature, and by the sympathetic observation of her



taking the veins as a basis for cutting.



Supplementary to Plate IV.



forms, our inventive faculty will be stimulated. Study nature for the spirit, as well as for facts, although the facts and the possibilities in them are not to be overlooked. "Invention plays a greater part in design than mere selection."

The term conventionalization unfortunately conveys to the beginner the distorting of a natural motif, "of putting nature into a straight-jacket." However, in adapting our motif to a given space—to the purpose of design—"we are only carrying out in the realm of art the great principle of nature herself, that of adaptation to conditions, which rules through all forms of life and which has led to the endless variety of development in both plant and animal forms." Conventionalization means something more than a formal rendering of a motif. "To conventionalize nature is to adapt a natural motif to the structural demands of a problem; to the space it is to occupy; to the tools, materials and processes of its execution." The merit of a design does not necessarily depend on the degree of conventionalization; it may be only slightly conventionalized or it may have completely lost its identity, but if it conforms to its position and to the laws governing line, form and tone adjustment, it is good design.

However, most of us enjoy a design in which we may recognize the motif, and if we are attempting to keep the identity, we must know the subject. There are certain laws of nature observable in the growth of all plants. In the different kinds of plants there are certain characteristics by which each family is known. If we would use nature forms in design we must be logical in construction. And this necessitates a knowledge of plant form and plant growth. We must fill our folios with structural drawings, showing plants or parts of plants, in their organic structural relation to each other, i.e., the joining of the stem, attachment of leaves and of flowers, the types of flowers whether in clusters or on a single stalk, the family habit—whether it creeps or grows upright. Cross sections of seed pods should be shown and these magnified suggest a variety of forms for design. Leaves should be drawn flat—fore-shortened and turned, showing both upper and lower surfaces.

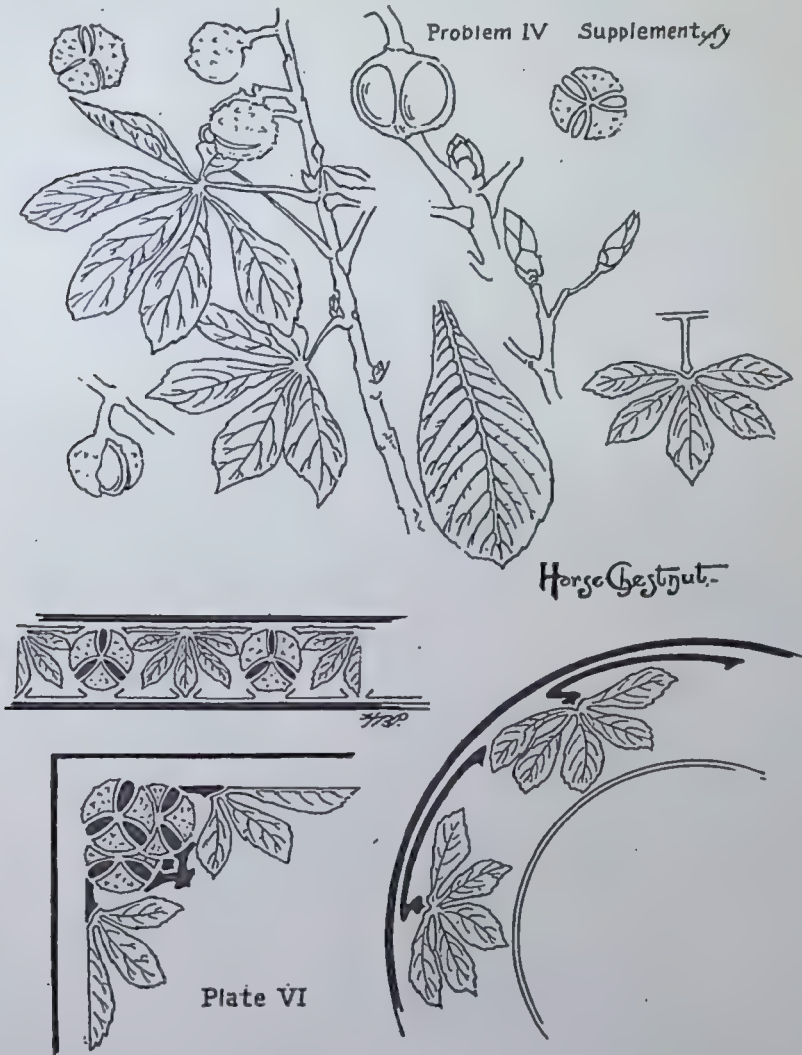
This knowledge we must have if we would use natural motifs and preserve the identity.

Do not distort a motif. If it will not lend itself to the space to be decorated, either sacrifice the characteristics to such an extent that the identity is entirely lost and it becomes design in the abstract, or choose another motif which will lend itself to the space and still preserve its identity. To illustrate: the plant of sturdy growth and woody stem does not easily lend itself to a circular space. Choose rather the plant that naturally falls into place, that is, the nasturtium, poppy, morning glory, or any of the graceful plants or vines; but we must not forget that it is not representation for which we are striving, but design; and while still trying to preserve the characteristics of the motif, we must watch the general effect of space and mass, the movement, the balance, and general harmony of line, tones, and areas. These are the "*essentials of design*;" preserving the identity of the motif, while entirely practicable, is secondary, but if it is to be sacrificed, it must be to the "structural demands of the problem," not through ignorance of its growth. *Elimination* is the process by which we arrive at design when working from a natural motif, seizing upon the characteristics, making the most of them, but eliminating all accidents of nature and all unnecessary detail. "We cannot use the transient beauty with which nature has endowed her forms. We must seek beauty of another character; it must come from within us and from a knowledge of sound structural principles." For our first exercises under this problem, let us choose the butterfly as one of the easiest motifs to conventionalize. It is symmetrical and easily lends itself to space. Leaves and stems also are material for much good design, on account of the variety of shape and manner of growth. We will leave the flowers and more complicated nature forms for later problems.

#### EXERCISE

Make six designs, two borders, two tile and two plate designs, using the motifs suggested. Use curved lines in the plate design, only observing the limitations of Problems I and II in the border and tile designs. This is better discipline than to give ourselves more liberty just now. There is plenty of time for the use of the curved line later on. (In Plates V and VI these limitations have been removed.)

Observe in Plate IV steps in conventionalization. It is necessary to construct a skeleton as a guide in order to conform to the limitations, as every line must be parallel to one of the three mentioned in the limitations (lines of the right angle triangle.) The cross-ruled paper, which may be procured at any stationer's, is an excellent aid in preserving these limitations. It may be placed underneath the tracing paper and the motif simplified by the aid of these lines.







## PROBLEM V

### BALANCE OF SYMMETRY

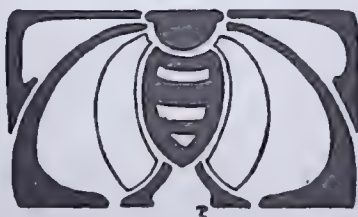
"The study of design involves a systematic training of individual power to select with good judgment and discretion and to arrange consistently. It should result in good taste."—*Alvah Parsons*.

"Ornament is *developed*, not *invented*. It must be vivified from within, not galvanized from without."—*Waller Crane*.

BEFORE we proceed further with design as adapted to shapes, we will, for discipline, practice the development of units of design. These we will consider later as parts of designs, but they are in fact complete in themselves, containing all the principles of design. We have defined, and in our previous problems have demonstrated the principles, rhythm and balance; but in the formation of these units, especially in the circular, the principles reach their strongest expression; the more pronounced the rhythm, the more carefully must we watch the balance. In the case of units balanced by symmetry, this is easier than when the parts are unequal in size and shape. Here the adjustment becomes a delicate matter—a matter largely of feeling and not of mathematical calculation. This problem deals only with the symmetrical units—having the same degree of attraction on either side of a vertical axis. We must remember that the space between the parts forms a strong attractive force and must be studied carefully and not left to accident. Symmetry appears as a basis of ornament in the earliest specimens of art expression. This kind of balance is always simple, dignified and strong.

From the first, man has endeavored to arrange his thoughts in an orderly way. The first and simplest expression of rhythm appears as repetition and through symmetry. In nature, if traced to details, we find symmetry to be the basis of all life.

We will begin with the abstract line and see how we can cut the space in the most pleasing way. Considering first the circular unit, the lines must be in harmony (in rhythmic relation) with the enclosing line and with each other. The





trend must be *in* and not *out* of the circle. There must be variety in the size and shape of the areas in order to create interest. When we have succeeded in demonstrating the principles in an abstract way, we will proceed to the natural motif, simplifying and making it conform to the same laws. Here we are again reminded that it is not necessary to keep the identity of the motif chosen, although we will do so when practicable. The primary object is to develop a sense of rhythm and balance—to *get it into the system*—to get the feeling for related movement and balance, so that in time these qualities will develop in our work automatically. Here all the limitations of the first problems are removed and we are free to revel in curves, always remembering the admonition as to restraint of movement and that we are working for well related lines and areas in harmony with the boundary line, rather than to imitate nature forms.

These units are complete in themselves; not only are they confined within a given space, but must of themselves form the shape suggested. They will later be used as *spot* repeats in making up borders and for other use as decoration, but for the present, they will serve their purpose in developing within us a feeling for rhythm and balance and as discipline in confining our efforts to a given shape.

#### EXERCISE

Make six symmetrical units of design, using shapes suggested in the illustrations; three using the abstract line, and three developed from a natural motif. See that all lines are in harmony with the boundary line and with each other. Watch for variety in size and shape of the parts and for construction, i.e., for a feeling of natural growth. Keep them simple as to line and arrangement and logical as to growth. Use for motifs, bugs, butterflies, leaves, and the flowers of simple construction.



## PROBLEM VI

### "OCCULT" OR "FELT" BALANCE

"There is an element in art which can be consciously controlled and may be classified and taught: there is another element which the personality of the artist supplies and which cannot be taught."—*Alvah Parsons*.

WE have said that nature in detail is always symmetrical. This is true only as to detail. Nature, in large, is not symmetrical. There is a higher type of balance found all through nature. It is this type that is characteristic of the Japanese decorations. It has been called "Occult" or "Felt" balance, and presupposes a finer or more subtle sense of balance. As we said in the preceding argument, it becomes a matter of feeling and not of mathematical calculation and results from the proper adjustment of objects or areas unequal in size and shape. When we come to deal with values and with color, these will also figure in helping to procure this balance, but for the present we are dealing with lines and areas only and must by the position of these produce a balance as perfect as that of symmetry. "Unequal attractions balance each other in inverse ratio to their power of attraction." So that in balancing two spots within a given area, the point of balance is farthest from the smaller spot (See Figure 1), giving the smaller of the two the most background—just as the smaller of two children on a "teeter" must have the larger share of the board.

The more difficult the problem, the more interesting it becomes. So we will find in the development of these units more of interest than in the units of symmetry. This sense of balance, if not intuitive, must be developed, if we would have any appreciation of composition, either in the field of design or pictorial art.

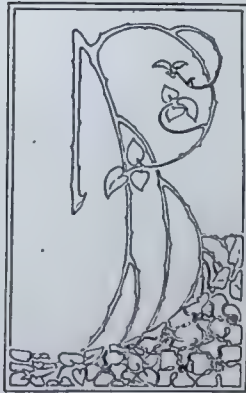
### EXERCISE

Construct six units of design (shapes similar to those suggested in the preceding problem) which are complete in themselves and demonstrate that type of balance which is





produced by the proper adjustment of parts unequal in size and shape. As in the preceding problem, begin with the abstract treatment of the space before using the natural motif. Work as before for a feeling of growth—construction—for variety in size and shape of the parts and for rhythm and harmony of line. These units are all valuable later as material for completed designs for shapes, as well as for present discipline in training the rhythm and balance sense.







## PROBLEM VII

### DECORATIVE MONOGRAMS

"The beautiful does not depend on the useful—but the useful may be made the highest expression of utility—of necessity—it then becomes beautiful."  
—*George Santayana.*

"It matters little whether we wield the chisel, the hammer, or the brush, or work at the forge, the carpenter's bench, or in the studio; if we feel our work and acquire the skill to make a thing of beauty, we are, in the true sense of the word, *Artists.*"—*Walter Crane.*

THIS problem is practically the same as the two preceding problems and is interesting and quite as practical, as every designer is interested in the making of a decorative monogram for use in his or her art work. These monograms are developed according to the principles of design and are, therefore, units of design and may be used as such in the decoration of table service, as well as for signature for designs, compositions and finished articles.

We will not attempt to cover the subject of lettering under this problem further than the construction of these monograms. Lettering is a distinct department and should be made the subject of special study. We all know enough of the construction of letters, however, to enjoy the discipline of this exercise and we will proceed without further argument to the construction, working for the same qualities as in the preceding problems.

### EXERCISE

Make six decorative monograms, using shapes similar to those of the two preceding problems. (This is only a suggestion, not intended for limitation). Demonstrate the two types of balance (according to the combination of letters chosen). In constructing these monograms it is permissible, when unavoidable, to reverse a letter. The decorative quality is our first consideration; legibility, while desirable, is secondary. When we can combine both qualities, we have the most satisfactory type. Let us avoid the monogram of commerce, the



jeweler's type as commonly seen. The characteristic of this type is the endless interlacing and superimposing of letters. Work rather for simplicity and harmony of line, avoiding the characteristics above mentioned.







## PROBLEM VIII

### TONE BALANCE

"The delight in beauty, be it of light, color, form or sound, is a common possession and a necessity of life, differing in degree, but not in kind. Cultivated or uncultivated, influenced by habit, association, modes of thought and conditions of life, wherever humanity dwells it flowers and seeds and springs anew . . . . art in all its forms is but the language of this universal feeling."—*Walter Crane*.

"Harmony is a broader term than either rhythm or balance, it may in fact involve one or the other, or both, of these terms. It consists in shunning differences too pronounced, contrasts too startling; . . . . but uniformity is assuredly not the most pleasing manifestation of harmony. The eye craves contrast, variety; how far to go, where to stop, is the problem of the designer."—*E. A. Batchelder*.

WE have said "the essentials of design are lines, tones and areas." So far we have been dealing with lines and areas only and our balance depended on the grouping and massing of these. We will now take up tone and tone values, thereby adding another element to our design. "The value of a note is the relation it bears to black and white—it is the comparative light or dark note which it makes in relation to its surroundings." Before we can appreciate color values or be able to use them intelligently, we must be able to see values in the neutral scale.

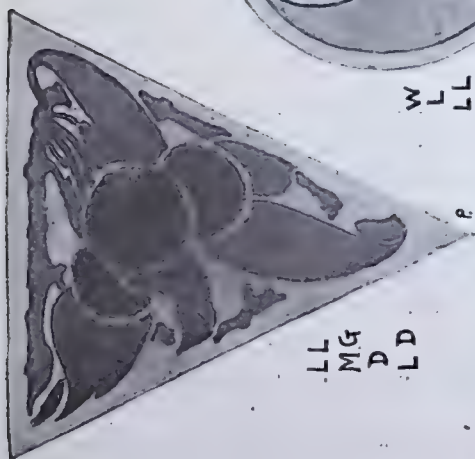
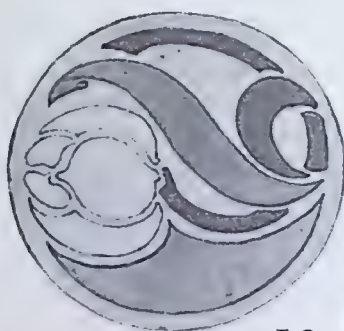
Our scale of values is much the same to us as the scale in music to the musician. To create harmony we must know which combinations produce harmony. To produce balance we must recognize the attractive force of a tone, either in color or of the neutral scale. The neutral scale illustrates tone-rhythm—the gradual blending from light to dark with regular intervals.

An arrangement of grays can be made to strongly suggest color; without actually giving color, we can suggest the quality of color.

The more values you can produce in your scale from white to black, the finer your sense of values.

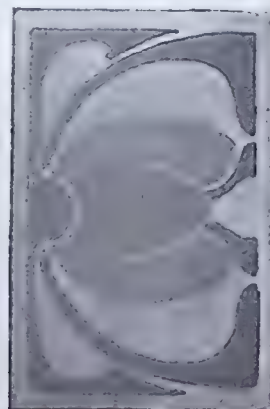


W HL L LL MG HD D LD B

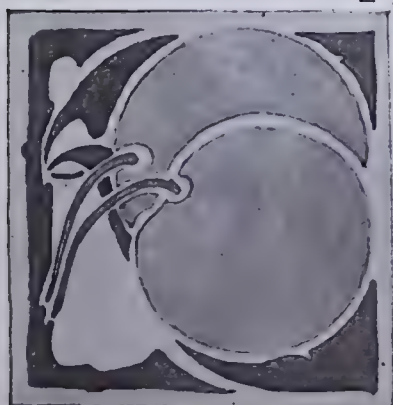


W  
L  
LL  
MG  
HD  
Outlines

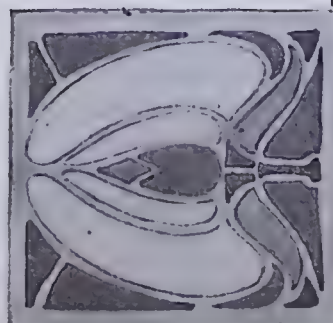
LL  
MG  
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LD



MG  
HD  
LD  
B



HL  
LL  
MG



W  
L  
LL  
HD  
LD

Begin by making only three; white, middle gray, and black. See that the interval between white and middle gray is exactly the same as between middle gray and black. Then make a scale of five values, adding light gray between white and middle gray, and dark gray between middle gray and black. Then try to produce nine values, adding high light, low light, high dark and low dark to the values already produced (see illustration). This is valuable practice in training the eye, just how valuable, you will not realize until you take up color. "The attractive force of a gray note is its area multiplied by its contrast to the background," hence it will take a very small spot of black to balance an area of middle or light gray on a white ground. Black and white have the same attractive force on a ground of middle gray; but on a ground of light gray, the area of black should be reduced accordingly. In the balance of tones, *contrast* plays a more important part than *quantity*—a very small spot may have a strong attractive force for the eye if the contrast to the background is sufficient. In the balance of lines and areas we were guided largely by the physical law of balance; in the case of tone balance, it becomes more a matter of sensitive feeling.

Avoid sharp contrasts. A chord made by notes of the same register\* is more harmonious than one of notes widely separated in the scale and the composition more easily balanced. In a perfect balance of values, no one part dominates over any other part, the contrasts are all equal. To bring any one part into prominence, we have but to increase the contrast. Where to stop in the matter of accent, is our problem.

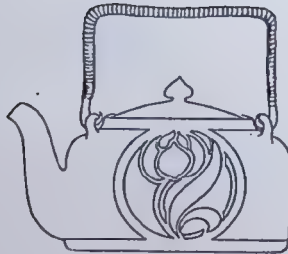
#### EXERCISE

Make a neutral scale of nine values (using charcoal gray). In using Japanese paper, stretch tightly over a white surface, using *plenty of thumb tacks*. Allow each wash to dry thoroughly before laying the next wash. Leave the paper for the white value, use India ink for the black, charcoal gray for values between. Do not try to produce the darker values with one wash, but repeat in washes until each value is correct. Do not be discouraged if you fill your waste-basket with your efforts

\* See Problem XVII for detailed explanation.



before producing a perfect scale. Patience and perseverance will here, as in all else, surely bring their reward. This neutral scale will be our tuning fork for determining the value of a tone when we take up the problem of color harmony. When you have succeeded in producing a perfect scale of nine values, proceed to put six of the units already constructed into values, using three values for each unit. Show as much variety as possible in the combination of these, avoiding always the spectacular effect produced by sharp contrasts. Remember that we are working now for *tone balance*.



## PROBLEM IX

### TONE BALANCE

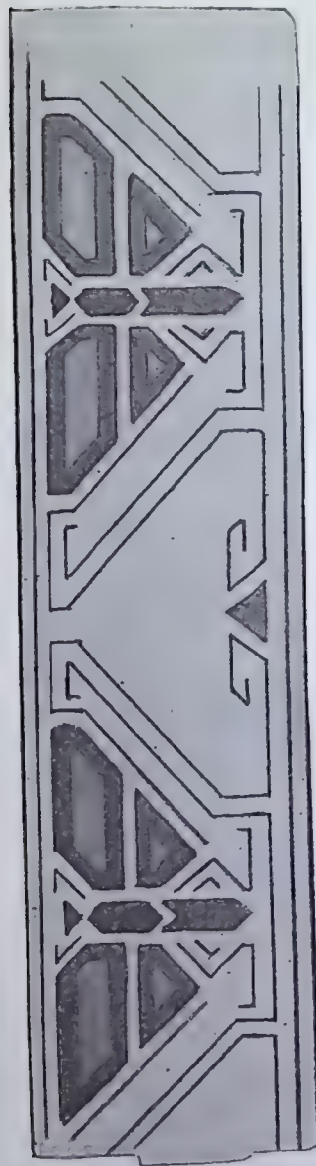
"There probably never was a well rounded perfect design without effort. To the sincere student, the accomplishment of a beautiful design means hard work, concentration, but the drudgery should not be apparent in the finished results."—*Denman Ross*.

"A worker who exercises his own individuality in work, learns to respect the individuality of other workers."—*Waller Crane*.

WE have made our scale of values and demonstrated its use (that of producing rhythm and balance of tones) in units of design. This part of our work is just as important as the construction of the design, and we will do well to proceed slowly, devoting the four remaining problems (before taking up color) to the task of the placing of designs, adapting those already constructed to practical shapes and studying carefully the balance of the tones.

We have stated that the "attractive force of a spot is its area multiplied by its contrast to the background." Our problem then is the distribution of values according to their attractive force. For this lesson we will go back to the exercises of our first problems—border, tile and plate designs. The two latter are already adapted, the former we will adapt later to shapes suitable, but for the present our problem is the distribution of tones, for the sake of rhythm, balance and harmony. We will in this, as in construction, proceed from the simple to the complex, using first but three values from the scale (any three you may choose). Follow the suggestion of the preceding problem as to sharp contrasts.

Our next three problems will deal with the adaptation of designs already constructed, to shapes, and also, beginning at the other end of the subject, we will choose other shapes, considering first the form and the amount and type of decoration demanded by each. For these we will endeavor to construct designs suitable to the shape and purpose of the piece—putting the same into values—preparatory to completing our work in color.



Analysis

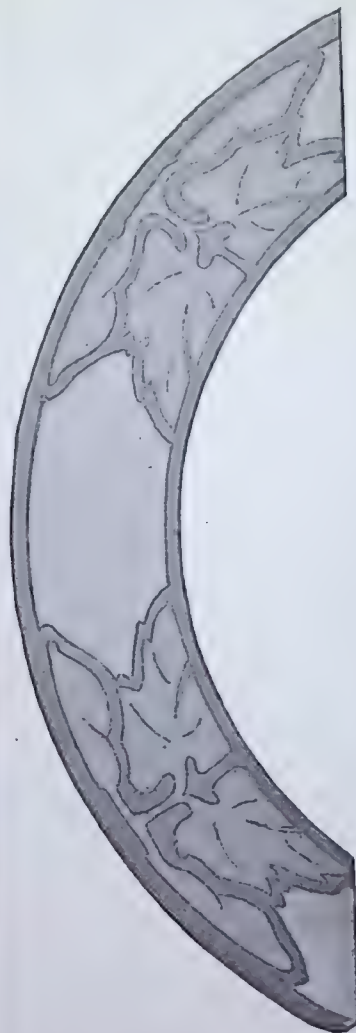
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L

LL

HD

Outlines LD



HL

L

MG

Outlines D



## EXERCISE

Put designs of Problem IV into values, using three values in each design. Choose any combination from the full scale, but see that they are disposed, both as to placing and contrast, so as to produce a balance of tones. Try for the sake of discipline and practice to show as much variety as possible in the combinations chosen; try different combinations for the same design to see which is most effective.





## PROBLEM X

### ADAPTATION OF DESIGNS TO SHAPES

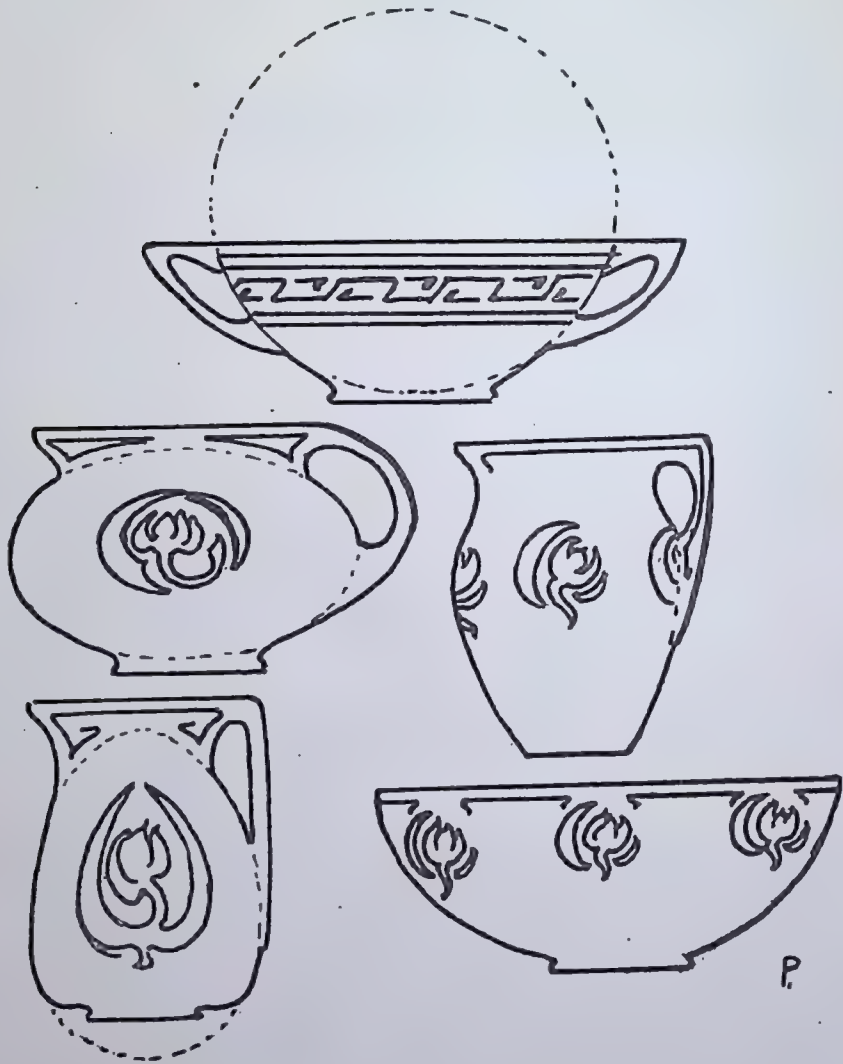
"Ornament should be felt rather than seen. The moment it becomes obtrusive, it is false and superfluous. Ornament and structure should not war with each other, for in the conflict the structure perishes, in the artistic sense."—*Samuel Howe*.

"We have in the works of art two independent sources of effect. The first is the useful form, which generates the type and ultimately the beauty of form—when the type has been idealized by emphasizing its intrinsically pleasing traits. The second is the beauty of ornament, which comes from the excitement of the senses or the imagination, by color, or by profusion or delicacy of detail."—*George Santayana*.

WE are now ready to adapt our designs to shapes, and are confronted with the problem of the placing of the design. The shape is the important thing, the decoration is simply to enhance the beauty of the shape. This is the end toward which we have been working from the beginning. In our first Problems we were considering design in the abstract—we were constructing the parts. Now, we will begin at the other end of the subject and, starting with the object, or shape to be decorated, we will first decide what proportion of decoration will enhance the beauty of the shape. Where should the design be placed in order to do this? We wish to accentuate its lines and to strengthen, if possible, its structural points, for we are dealing with constructive design, not mere decoration; our shape now becomes a part of the design and our design a part of the whole. What proportion of the piece should be devoted to the ornament, i. e., what proportion should be the design proper and what the background? This must be determined by the shape of the piece and the use for which it is intended, but here again we are reminded that *restraint* in ornamentation is the better course, especially with a beginner. It is not necessary to crowd all of our knowledge into one design.

Every ceramic artist should have a course in the building of pottery as a training in appreciation of form, line and

proportion. It is then and then only that one will really appreciate the difference between *organic* and *applied* design.



Shapes built on the circle, ellipse and oval. Borders and units adapted.

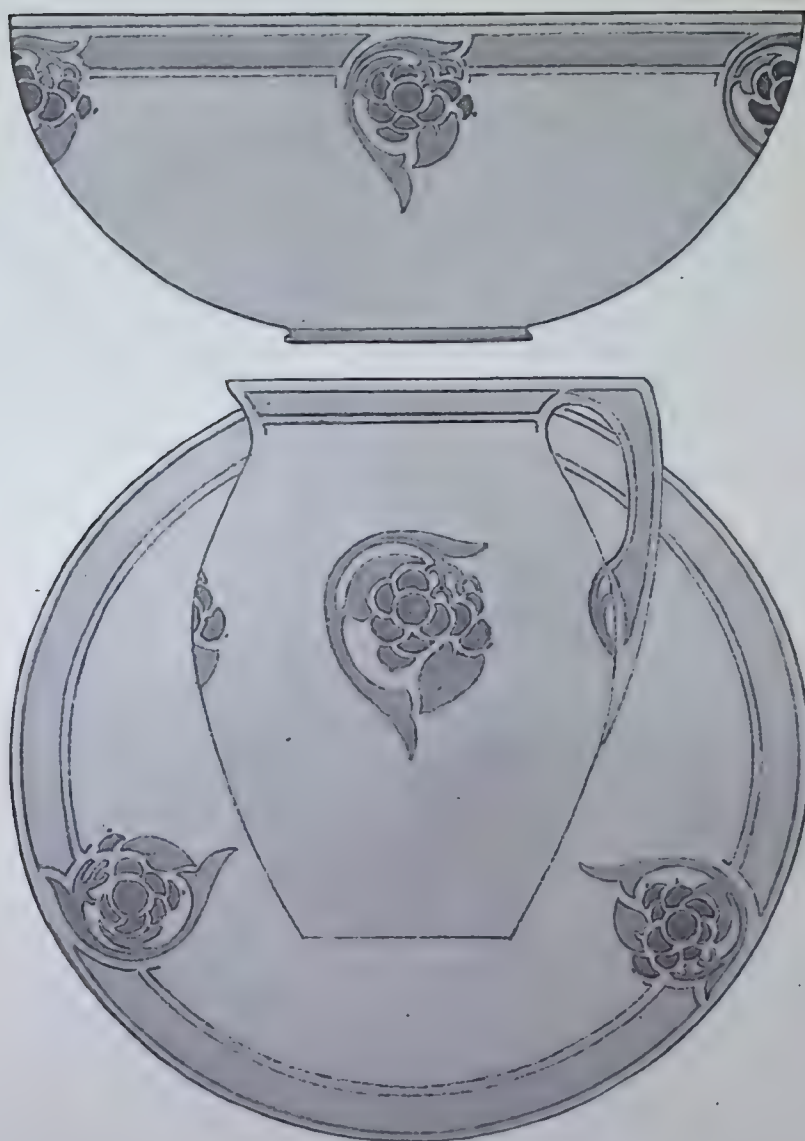


PLATE XI



Generally speaking, a decoration should not occupy more than one-fifth to one-third of the whole space. In the placing of a design our first aim is to divide and sub-divide the object so that a balance of space and mass is produced. We will, of course, place the bulk of the design where the shape is heaviest, trying by the placing of minor decoration, to balance the larger masses. The handle, if any, must be considered a part of the whole—a very important part—and should, if possible, have some share of the decoration and if treated properly will aid largely in balancing the design. The *use* for which the piece is intended shall decide the *nature* of the design; the *shape* of the piece, the *placing* of the design and the background must be considered as a part of the decoration both as to proportion and general tone. (See illustration.)

As we stated in our last lesson, strong contrasts are to be avoided by the beginner, so in the use of values we will try to keep the tones of the background close to those of the design proper, avoiding the spectacular effect—the over-emphasis of any one point in the design. Work for close harmony, a balance of tones is more easily gained in this way.

#### EXERCISE

For practical application of this problem, we will take a child's bread and milk set—plate, pitcher and bowl; select a shape from any of our catalogs of white china—choosing for simplicity of line and good proportion. Our borders and units of design will here become practicable—the units being placed at proper intervals and held together by the use of panels or abstract lines. In case of bands or border effects, we will drop the decoration at least one-fourth inch from the edge. The space between the units is important, also their exact position on the shape. In the illustration Plate XI the decoration of bowl and plate is close to the edge, while on the pitcher, we have placed the unit lower down, where the shape is the heaviest and have completed the decoration with the panel at the top and on the handle.

In our text we can only suggest and warn, the practical help comes in the criticisms—in the intimate, pertinent suggestions as to the student's own work. As we learn most by

our mistakes, it is only by trying to do for ourselves that we learn to appreciate what others have accomplished—to respect the designs of others. Do two of these sets, trying different combinations of values for each. Choose from three to five values from the scale, including the background value and outline.



Supplementary to Plate XI



## PROBLEM XI

### ADAPTATION OF DESIGNS TO SHAPES—(Continued.)

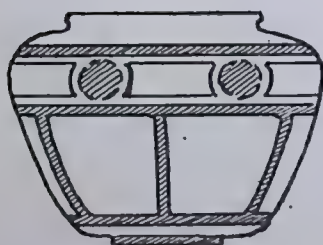
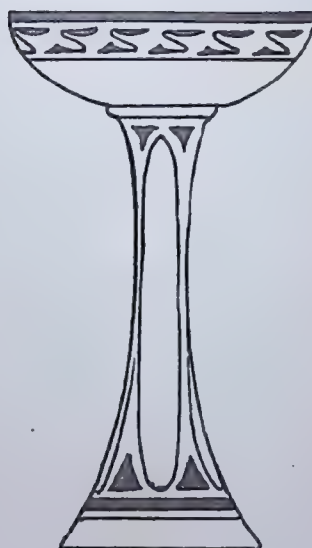
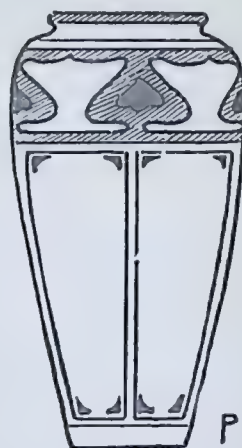
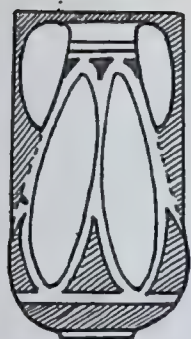
"It is only by a study of conditions under which the design is to be carried out that we can get a workable design . . . all types of design are controlled by exactly the same principle under the limitations and possibilities of the particular kind of material in which one is working. The architect, interior decorator, the rug weaver, all work with exactly the same idea of form and arrangement, they are each limited by the material in which they work. The laws of arrangement are positively common to every phase of expression."  
—*Alvah A. Parsons.*

CONTINUING our argument begun under Problem X, as designers of decorations for porcelain, we must, as we have said, be able to approach the subject from both ways. We have studied the construction of the ornament, and now we are studying to adapt our ornament to shapes, trusting that with an intelligent understanding of the laws of proportion and distribution of areas, our ornament will at least appear to be organic, a natural outgrowth of the demands of the shape.

We instinctively place the decoration of a plate near the edge, as the part which will not be covered when in use. In the decoration of the bowl we were guided largely by the same instinct, placing the bulk of decoration on the outside with only an echo on the inside, near the edge, with perhaps a unit in the bottom for the sake of balance.

For our exercises at this point we will choose the vase form and should treat a vase much as if it were a piece of architecture, reserving the decoration as part of the architectural expression (see illustration "Architectural shapes and structural decoration"), also we must remember that the decoration should not interfere with the use of the piece—should not compete, as it were, with the natural floral forms it may be made to hold. For this reason the more noncommittal, or the more formal the decoration is, the better. We do not wish to compare a pink rose of the decoration with the natural rose the vase may hold. The painted rose will always suffer in comparison, so that in the decoration for an article of use, such as a vase and





Architectural Shapes and Structural Decoration

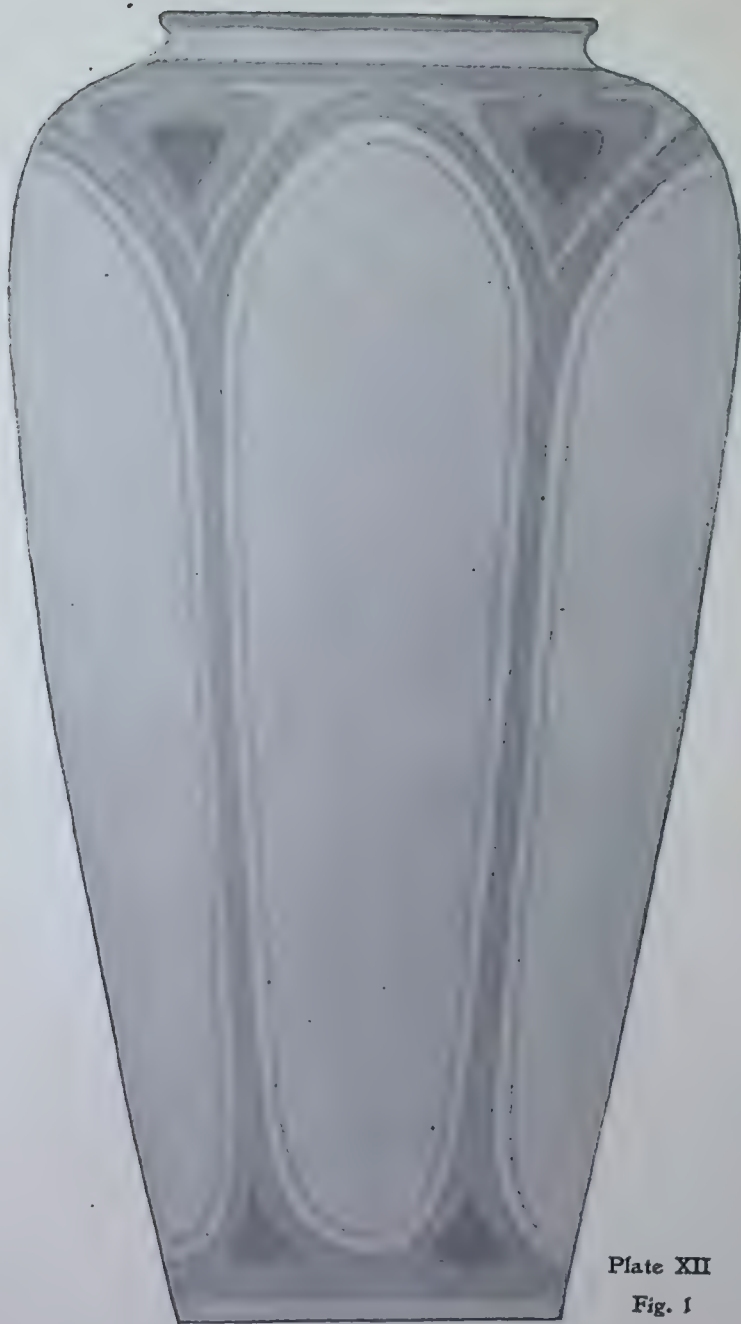


Plate XII

Fig. 1

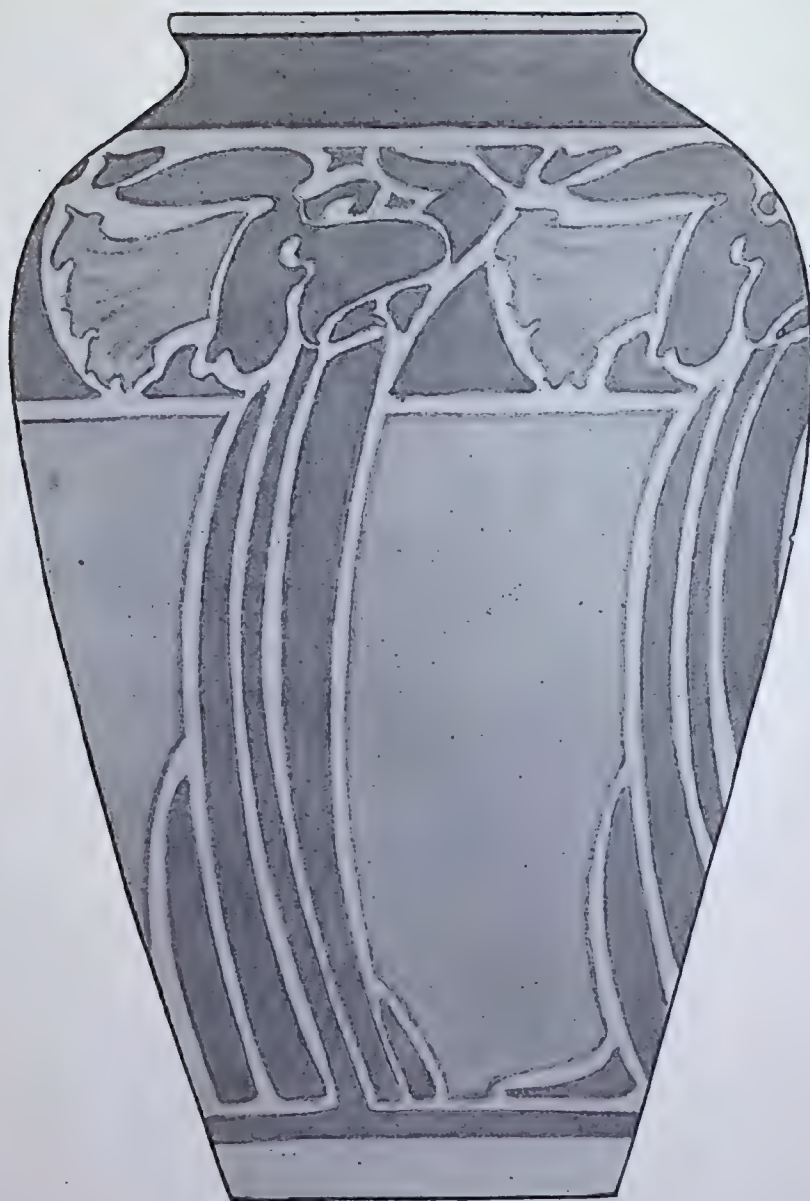


Plate XII, Fig. 2

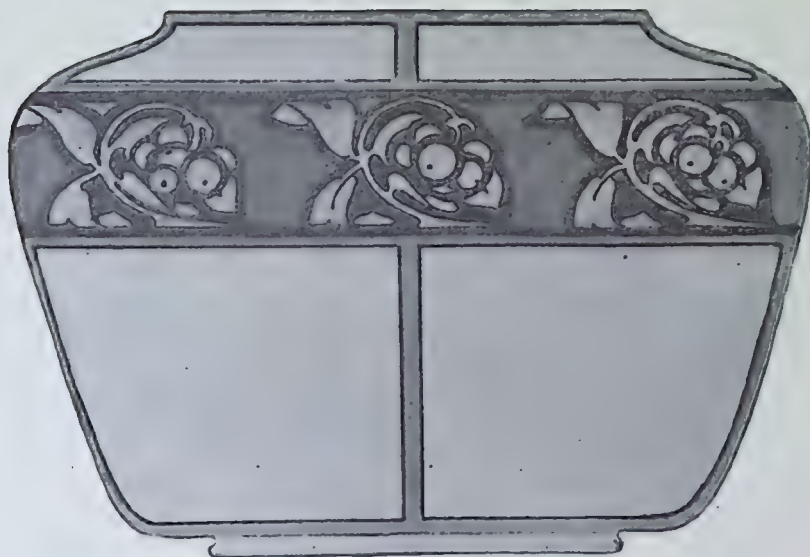


Plate XII, Fig. 3

other objects of this class, we conventionalize for two reasons: first, to conform to shape, and second, to avoid a feeling of competition. Let us choose first a vase simple in line, not too convex or entirely straight as to outline, (see illustration Plate XII, Figure 1). The broadest part is above the center, near the top. We will say it is ten inches high and four and one-quarter inches in diameter at the broadest part and three inches at the base. If we divide with perpendicular lines, they should be parallel with the outline; then if we wish to accentuate the shape, we will broaden the design at the point where the shape is widest. Placing a band around the shape horizontally at this point will tend to lower the height. Continuing the perpendicular effect and merely widening the design near the top will accent the height and make it appear more slender (Figure 1). "This is what we term structural motion." If the vase be more convex in outline, we may exercise our love of curves, using the oblique curve of motion (Figure 2), but if the movement is perfectly consistent, it is always in harmony with the structure of the builded object.



This type of design illustrates "rhythmic motion" and we must be careful to exercise restraint in the movement. The horizontal band plays an important part in decoration, even where the space below is broken by perpendicular or oblique lines (Figure 3).

#### EXERCISE

Select from a catalog of china three vases of different outline, one tall and slender, one convex in outline, and one low shape. Begin by dividing and subdividing the shapes to determine the placing of the decoration (see illustrations Pg. 64). After deciding what proportion of the piece is to be design and what background, select motifs and proceed to construct designs that will fit the requirements of the shapes, have at least one design purely abstract and the treatment of the motifs extremely severe. For the taller and slender shape try for motifs the narcissus, fleur de lis, jonquil, dandelion, and for the lower shapes, nasturtium or decorative berries. When the designs seem satisfying as to construction, proceed to put them into values, having in mind the possible color treatment of each. Let us confine ourselves for the sake of definiteness to the motifs suggested. Study carefully the illustrations, both for construction placing and tone values.



Plate XII, Fig. 4

## PROBLEM XII

### ADAPTATION OF DESIGNS TO SHAPES—(Continued)

"Ornament is the wine of architecture; through it runs the personality of the artist, and into it is condensed his genius, but it unduly charms and allures. It is to be resisted by the weak and used by him alone who can master it. True ornament cannot be applied; it arises from within the thing to be decorated. It is joined with the constructive principle, as the life of the being is joined with the bone and muscle of the body. Ornament is a surface manifestation of the vital energy of art; it conveys sentiments and expresses facts. It is religious and symbolic; it demands existence, but it must not be allowed to live under self-destroying anarchy. Government and proper development are its necessities, as they are those of all other strong individual forces."—*Samuel Howe.*

THIS, our last problem in construction, is a continuation of the two preceding ones, simply choosing different shapes for the demonstration of our theories. It is to be regretted that we cannot have more of this practice in the practical application of our design to shapes, but in this short course we are necessarily limited; the laws governing, however, are common to all shapes so that if we have grasped the significance of the governing principles, the variety of forms need not confuse us. This reduces what at first seems to be a complicated subject, to a comparatively simple one when understood. We will keep to the articles most familiar and in every day use, using for this exercise a teapot, creamer and sugar bowl with cup and saucer to match. Choose for a motif one already used in the construction of our earlier designs (borders and units of design). We can, by reducing the size, connecting our units, etc., make workable designs for these shapes. Let us use the same motif on the whole group, considering them as a set.

Keep the decorations extremely simple, remembering that they are for table service—and for actual use on our table. The simplest decoration is the most pleasing. The illustrations given will better illustrate the point than the text possibly can, and it is only to be regretted that we cannot continue

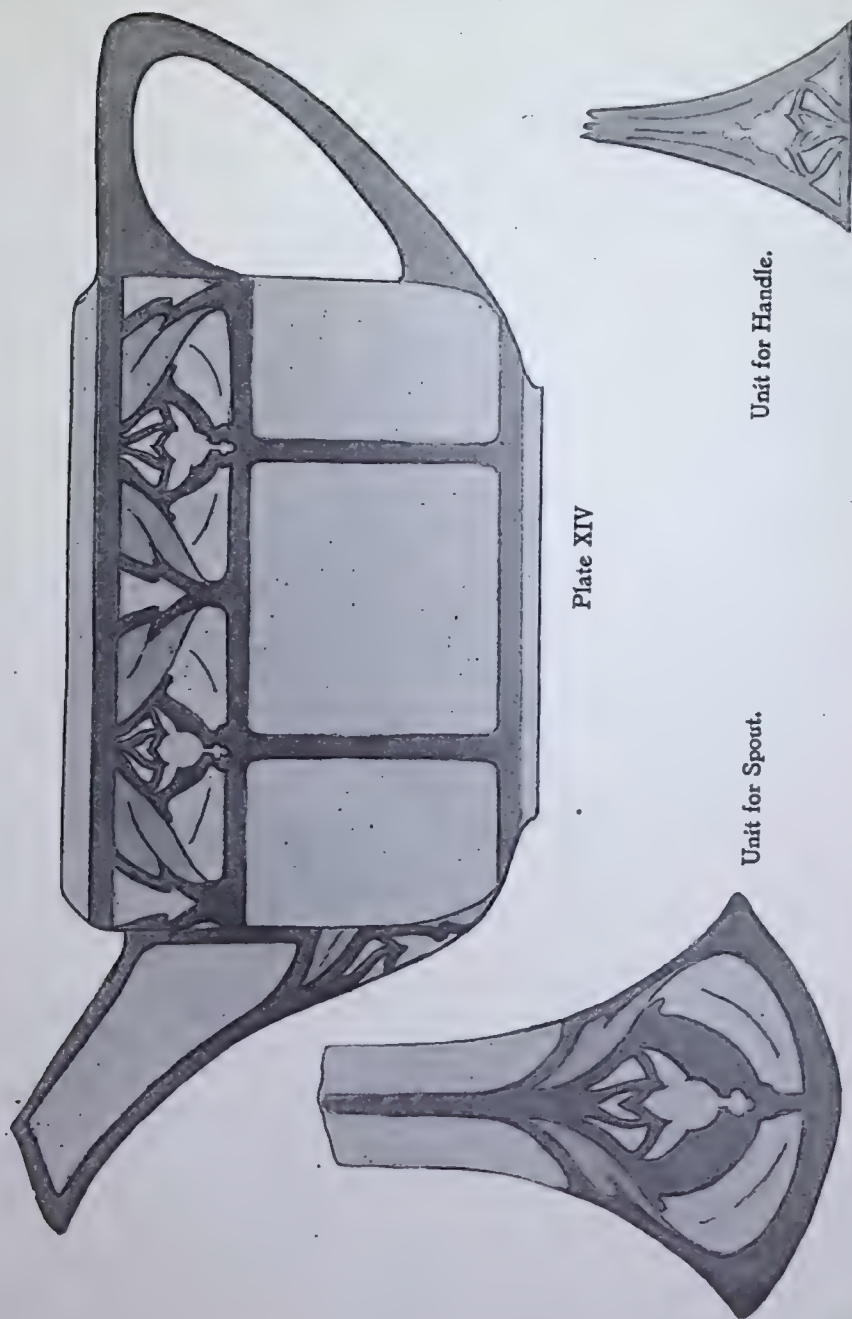
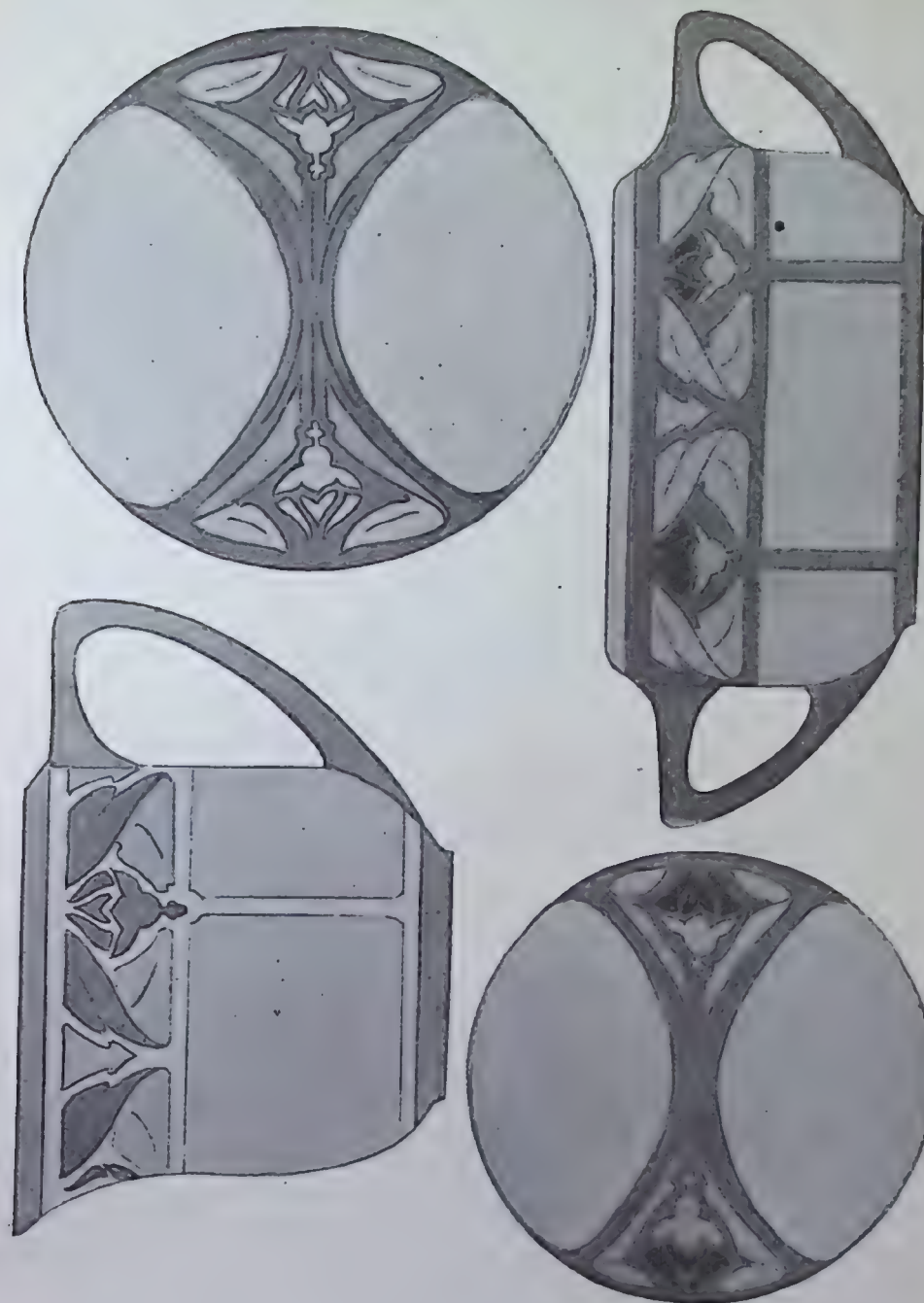


Plate XIV

Unit for Handle.

Unit for Spout.



Cover for Sugar Bowl.





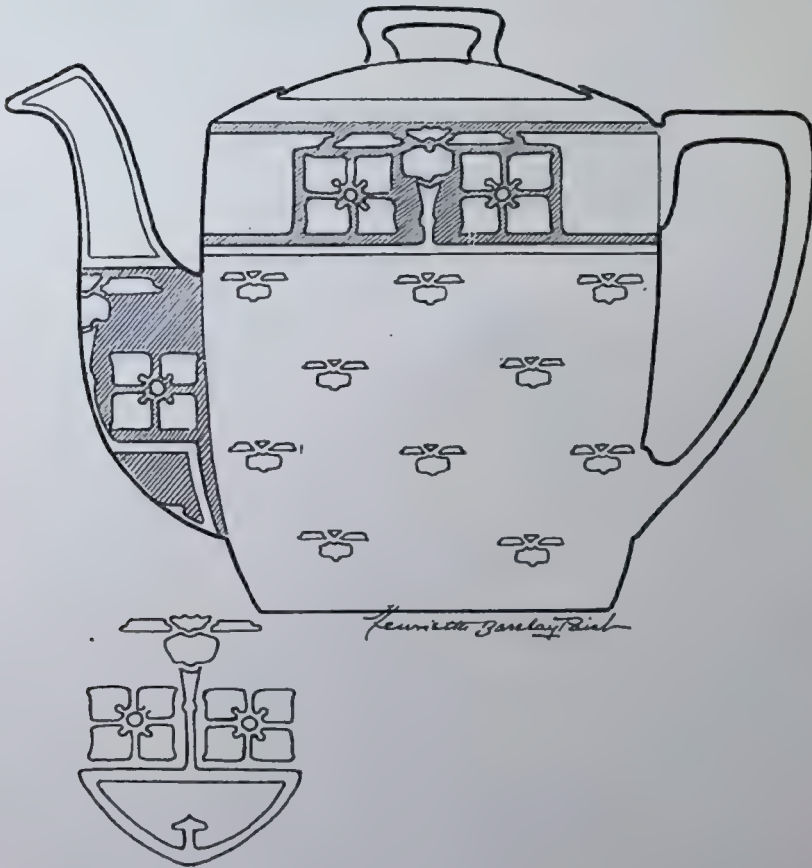
Supplementary to Plate XIV

these exercises indefinitely, bringing into use greater variety of types. It is to be hoped, however, that the student has by this time a sufficiently clear idea of the general laws to be able to go on with the subject by herself, experimenting and testing her own knowledge gained in these exercises. The students taking the regular course can arrange to continue the work,—sending in extra designs for criticism as long as they feel the need of help. Do not forget that the *value* work is a part of the problem—as important as the construction and placing of the designs—and a preparation for our work in color. In taking up the subject of color harmony we will again review each problem, using the design already constructed and placed.

#### EXERCISE

Choose from a catalog of white china with reference to good line and proportion—a set consisting of a tea-pot, creamer

and sugar bowl with cup and saucer to match. The simpler the shape, the better it is adapted to practical use. Adapt designs as suggested above, with special reference to the placing and the balance of values (see illustration), or we may with previous arguments in mind construct a type of design different from those already used but suitable and in harmony with the forms chosen; the shape of the pieces chosen will have to determine the type of design suitable. If a border is used it should not occupy over one-third of the space. If the border is very narrow and the shape simple in outline, we may break up the space below by the use of panels or by tiny units used as spot repeats (see illustrations). In the placing of these, the spacing is the important thing.





## PROBLEM XIII

### COLOR HARMONY

"Music is equipped with a system by which it defines each sound in terms of its pitch, intensity and duration. So should color be supplied with an appropriate system, based on the hue, value and chroma of our sensations. . . . The study of color finds immediate and practical use in daily life. It is a needed discipline of color vision, in the sense that geometry is a discipline of the mind and it also enters into the pleasures and refinement at every step."  
—*Munsell*.

IN taking up the subject of color we are governed by the same principles as in our problems of construction, i. e., Rhythm, Balance and Harmony. To know good color, to really form a judgment and appreciation of color harmony, one must, besides studying the scientific basis of color relations, go to Nature and to the Art of the Past, for inspiration. Each Nation in its turn has contributed something to this wealth. Especially rich in this respect is the Art of Italy during the sixteenth century. The Japanese have contributed largely; almost every article they produce is an Art expression complete in its composition and color. Learn from the past, it is invaluable as inspiration, but do not copy what has already been done. Study rather the spirit which inspired it and the conditions under which it was created. In the words of Walter Crane "we of this age may well treasure the priceless fragments of Art as an inheritance of the past, but let us not forget that Beauty is a living force, having its own recurring seasons, growth, perfection, decline and renaissance. We are the trustees, as it were, of the common property of beauty."

Color is at once the most fascinating and complicated of all art studies. Out of the thousand combinations it is difficult to know which are fine and which are commonplace; to be able to select the best from these endless combinations requires taste and judgment. How to educate the taste and form a judgment is our problem. A superficial study of the Art of the Past is not sufficient. There are reasons for everything.



We stated in the beginning of this course that we would proceed by logical reasoning and not be guided by the emotions. There are laws of Art that are as fixed as the laws of gravitation and attraction. To gain any definite idea of color harmony and color balance, we must understand the *attractive force of colors*. We must have a system and a nomenclature that will be as definite as that of music. We have been "cramped by the poverty of color language" and as to color names one has only to recall the lists of colors provided for the Ceramic student—the incongruous and bizarre nature of the names—misleading and meaningless—to feel a sense of helplessness and hopelessness. A scientific study of color and color harmony, terms and definitions, will substitute order for chaos—knowledge for feeling—will equip us with a definite understandable system, refine and educate the taste and open the eyes to beauty hitherto undreamed. Here again we are hampered in the illustration of our text by the difficulties and expense of color reproduction. We will, however, by the aid of our diagrams, try to give a definite idea of the elementary colors, their names, relative position, attractive force, and possible combination.

Savages and very young children love color in full intensity. They were so used by all the primitive races. The Egyptians used five colors, yellow, red, orange, green and blue, in their primitive way and in a symbolic sense. The early American Indians used four in the same way. The uncultivated taste calls for pure strong color and strong contrasts. There is a psychological reason for this. Pure, strong colors, besides attracting the eye, excite the emotions and stimulate.

As the race advances intellectually and spiritually, the emotions are checked by reason, by mental and moral control. The eye becomes tired of the strain of over-stimulation and calls for rest. This is obtained by reducing the colors to less intensity. *Pure colors have the strongest attractive force for the eye. Greyed or softened colors have less in proportion to the degree of neutralization.* Hence we reduce the *quality* of a color as we increase the *quantity*, and vice versa. We do not write or speak always in italics or strong phrases—we reserve these for accent—to emphasize a strong point. So in the language of color we try to use colors according to their attractive

force, softening for large areas and reserving pure color for emphasis.

Notice in Nature the proportion of positive colors to that of the greyed or softened colors. We find in sunsets, in some flowers, insects and in the plumage of tropical birds, colors in their full intensity; but these examples are rare when compared to the wealth of greyed colors we see all about us. The designer in every department of Decorative Art may well follow this suggestion of nature, avoiding brilliant hues and combinations until a thorough appreciation of Color Harmony is cultivated.

Let us first try to fix the *terms* of color clearly in the mind. These terms are so often misused and interchanged that we will do well to note carefully the definition of each and try to visualize them in the mind's eye. The term "*HUE*" is used to differentiate between pure colors, to denote the steps from one color to another, as Yellow, Orange, Red-orange, Red, etc. It is the *first quality* of color. The *second quality* of color is *intensity*; it has been termed "*CHROMA*" and denotes the placing of a color in the scale from *purity* to *neutrality* (the degree of neutralization). The *third quality* is its *value* and denotes its position in the scale from white to black. "There is a difference between the quality of *light* and *darkness* and the quality of *intensity*." The *value* of a color depends on the amount of white or light contained in it. Yellow or Violet are extremes in the value scale. Green, Red and Blue are intermediate. (See Diagram 1). This diagram shows the proper position, on the neutral scale, of each color in its fullest intensity.

Tints are obtained by adding white to pure color—by raising them in value—and have less attractive force than the pure or intense colors. Yellow, Red and Blue (commonly called primary colors) are the "Elementary forces of all color expression." Yellow, is the luminous element; it is the piercing, traveling, progressive color, the first to reach the eye. Red, the second element, expresses fire, passion, temper; it irritates the optic nerve, it absorbs light instead of reflecting it, as does yellow. Blue, the third element, is the distant, receding color; gives perspective, but is unsympathetic and cold.

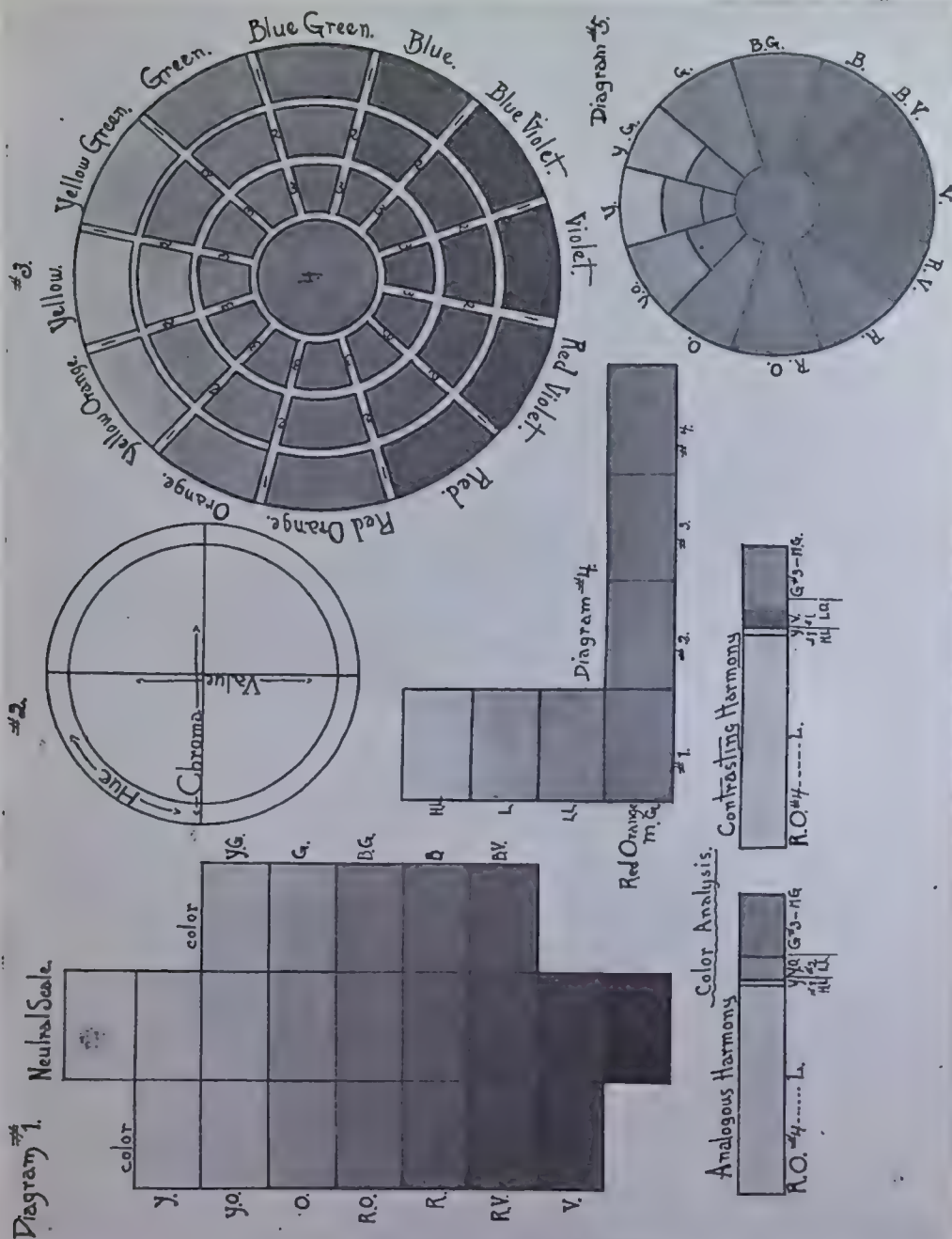


PLATE XV

Diagram 3  
Showing steps in neutralization

Diagram 4  
Color Qualities

Diagram 5  
Showing normal position of each hue on the value scale

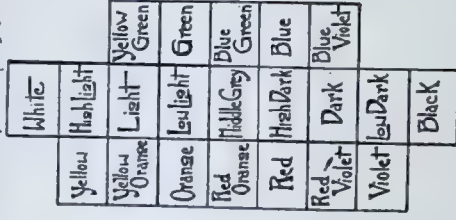
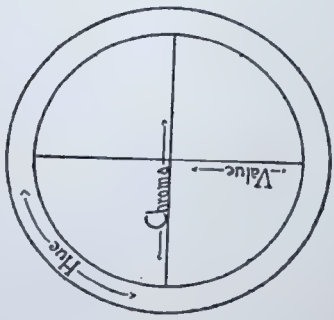
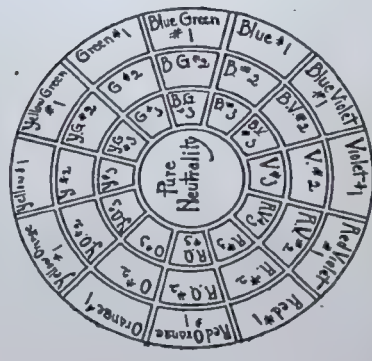
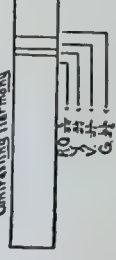
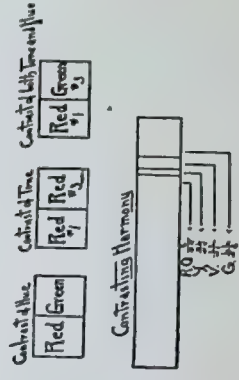
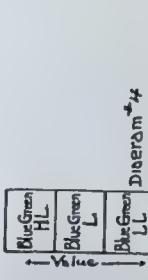
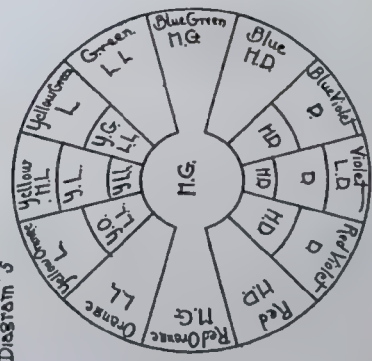


Diagram 5





All of the intermediate HUES are produced by combining colors adjacent to each other in the scale. The greyed or neutral colors (shades) are produced by combining complementaries, i. e., to soften Red, add Green and vice versa; to soften Violet, add Yellow, etc.\*

#### COLOR RHYTHM

Taking the color chart in its full intensity we find on both sides a related movement from light to dark, making a *color rhythm* (Diagrams 1 and 3): Also taking each color separately we have a *rhythm of hue*—a value rhythm from the palest tint to the color in fullest intensity. To procure a rhythmic arrangement of colors, we must understand *color values*. (See again Diagram No. 1.)

#### COLOR BALANCE

The balance of a color scheme depends on the distribution of the colors according to their attractive force—on the proper proportion of each color in the scheme according to its intensity and color value.

#### COLOR HARMONY

A harmonious color scheme presupposes an arrangement of colors according to the principles above stated. There are two kinds of harmony, "*analogous*" and "*contrasting*." Analogous harmony results from a combination of colors closely related in the scale. Contrasting harmony presupposes a combination of colors not closely related, or opposite on the chart. (A combination of Yellow, Green and Blue, produces analogous harmony—A combination of Yellow, Green and Violet, or of Orange and Blue, that of contrast).

One cannot hope to obtain color harmony without an intelligent understanding of the *attractive force* of colors and their *relation to each other*. The attractive force of a color note depends on its *intensity* plus its *value* and its *contrast* to the *background*. The attractive force of Orange or Red on a *neutral background* is much *less* than on *White*, as *Black* has less attractive force on *Gray* than on *White*. It takes a very small area of any pure color to balance a large area of a neutral shade

\*Complementary colors are those which are opposite on the chart—see Diagram No. 3.

—greyed color. Our *Problem* then is, the *proper proportioning* and the *distribution* of colors according to their attractive force. With these fundamental facts we will proceed to our exercises, which will help to fix them in the mind.

Study well the color chart, showing position of HUES in their relation to each other, note diagram No. 1, showing position of each Hue on the neutral scale, determining the value of each. Note diagram No. 5 showing the number of steps, in value, each color undergoes in the change from its normal position on the scale to that of middle gray. Note diagram No. 2 illustrating the three dimensions of color—*Hue*, *Chroma* and *Value*. The pure Hues are arranged on the outside of a circle, the value scale is perpendicular and the lines indicating “Chroma” run from the pure Hues on the outer rim toward the neutral scale in the center—towards absolute neutrality. In diagram No. 3 the numbers denote the *degree of neutralization* of each Hue in its transition from *purity* to *neutrality*, while diagram No. 5 shows the *steps in value* of each Hue from its *normal position* on the scale to “middle gray.” Yellow being “high light” in value shows four steps to “middle gray.” Violet being “low dark” in value, has the same number of steps. Red orange and Blue-green being middle gray in value (see position on the neutral scale) undergo no change. The other Hues show the proper number of steps according to their position. Diagram No. 4 further illustrates the difference between *Value* and *Chroma* showing one Hue raised from its normal position “Middle Grey” to “High Light” and neutralized three times, No. 1 referring to the color in its pure state. (To raise its value we simply thin or add white—to neutralize, we add its complementary.)

#### EXERCISE

Make color rhythms showing each Hue in seven values. Show Hues neutralized in four steps, from purity to neutrality. Make two color schemes, demonstrating *analogous* and *contrasting* harmony, showing in each a *color balance*, produced by the proper proportion of each color according to its attractive force. Indicate as per illustration the *Hue*, *Value* and *degree of Chroma* of each color in the scheme, using initial letters to indicate

Hue; degree of Chroma indicated above and Value below the line—(i.e.—R. O.  $\frac{4}{1}$ \*).

For the practice in color work under this and subsequent Problems, the following water colors are suggested as the nearest approach to the *Spectrum Hues*. For the yellow of the chart, use Gamboge; for the red, mix Carmine with Vermillion; for the yellow-orange, orange and red-orange, blend Gamboge and Vermillion; violet is best made with Ultramarine Blue and Crimson Lake; red-violet and blue-violet, the same, with Crimson Lake dominant in the former and Ultramarine in the latter. Use Ultramarine for the pure blue, but for the blue-green, green and yellow-green, Prussian-blue, or Leitch's Blue may be substituted and blended with Gamboge in different proportions. Winsor & Newton's Viridian Green is the nearest approach to the green of the spectrum and may be used instead of blending yellow and blue. There is a set of colors known as the Ruxton colors, which are supposed to exactly represent the Hues of the Spectrum. The red color is entirely satisfactory, also the yellow and blue, but for other hues, the writer prefers the Winsor & Newton colors. Wadsworth Howland has a set of eight colors based on the Munsell system for measuring color, which is satisfactory, consisting of Maxina Red, Yellow, Blue, Purple and Green with the same four hues in Middle Value and intensity. Prang also has graded color, both transparent and "tempera" (opaque), which will be found valuable for chart work.

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\*It has been found impossible to reproduce in color Mrs. Paist's color chart, but hand-made illustrations in color will be furnished to students who are taking a regular course of design with her.

## PROBLEM XIV

### COLOR HARMONY, APPLICATION

"Beauty of Color lies in Tempered Relations. Music rarely touches the extreme range of sound, and harmonious color rarely uses the extremes of color light or color strength. Regular scales in the middle register are first given to train the ear, and so should the eye be first familiarized with medium degrees of color."—*Munsell*.

LESSON XIII, if assimilated, has given us a basis for our color work—a definite understandable system for the selection of our color schemes. The most important point and the one hardest of comprehension is the fact that color has *three dimensions* or *qualities*. It is not easy to differentiate between the *value* of a color and its *chroma*, although we of course, recognize the softening process. But we are apt to confuse this process with a change in value, which may, or may not, take place. A color may be reduced in intensity without changing its value—its relation to Black and White. Taking an illustration from nature, a leaf may turn from Green to Red in the Autumn without changing its value, later it may also change from a clear Red to a dull or neutralized shade without having changed its value, although in the process it may also have lost in value. In the demonstration, then, of color harmony and color balance, the neutralized colors play an important part, being used almost entirely for backgrounds and large areas, the pure colors being reserved for accent. Careful study of standard combinations will soon train the eye to "feel" harmony or discord without reasoning out the theory. For practice in the application of our theories, we will take our units of design as shown in value, using these values as a guide for our color values. Illustrate as before the two kinds of harmony, show also the warm and the cool color schemes. Work for rhythm and balance and the harmony that results from these.

In our next problem we will take for our application the exercises of Problem IX.



## EXERCISE

Select from Problems V and VI, six units of design for the application of our color theories. Show in two *analogous* and in two *contrasting* harmony: in one a warm and in one a cool color scheme. Show under each unit a color analysis (see illustration, Lesson XIII), indicating the *Hue*, *Value* and *degree of Chroma* of each color used. Use for this purpose the Japanese paper if procurable, preparing as for the work in neutral values. Any water color paper may be used for these experiments but the Japanese paper is especially practical where the work is sent in for criticism. Use the same brush for washes as in the neutral value work, the smaller brush being reserved for outlines, which by the way are to be considered as a part of the value work and must be tempered to the other values used. A lead pencil outline is often satisfactory when ink outline would be too sharp. A sharp outline may spoil an otherwise harmonious color scheme. For illustration of this problem see color plate.

## PROBLEM XV

### COLOR HARMONY, APPLICATION (Continued).

"It is not claimed that discipline in the use of subtle colors will make another Corot or Velasquez, but it will make for comprehension of their skill."  
—*Munsell*.

"Art is not a science, but when science puts its knowledge into practice, it becomes Art, hence Art may have a scientific basis and is, at its best, creation."  
—*Walter Crane*.

CONTINUING the practical application of our color theories we will revert to designs of Problem IX, border, tile and plate, which already have been suggested in values. Remember that a background should never be a pure color—a color in its full intensity. Choose either a tint or a shade of a color and then decide as to whether you will have an analogous or contrasting harmony; whether you will show a cool or a warm color scheme. Watch as before for your color balance, distributing your colors according to their attractive force, the greyed colors in larger and the pure colors in smaller areas. Proceed slowly and cautiously with color. Note in illustrations the gradual evolution from the monochrome through analogous harmony—to the more daring combinations of contrasting colors. Refer continually to your charts and diagrams until you have them perfectly as a mental picture. If your understanding is not complete, the criticisms will set you right and gradually the whole subject of color will become clear and we will be able to work with a definite understanding of a system of color, instead of depending for our judgment on a mere "feeling" or "taste." Color is a large subject but like any other it is made simple by a *system*, by a *method* of approaching it. Once grasped, the system makes of it a definite subject, and you will enjoy the mental discipline of the work of selecting definite color scheme, based on a scientific knowledge of color values and color harmony.

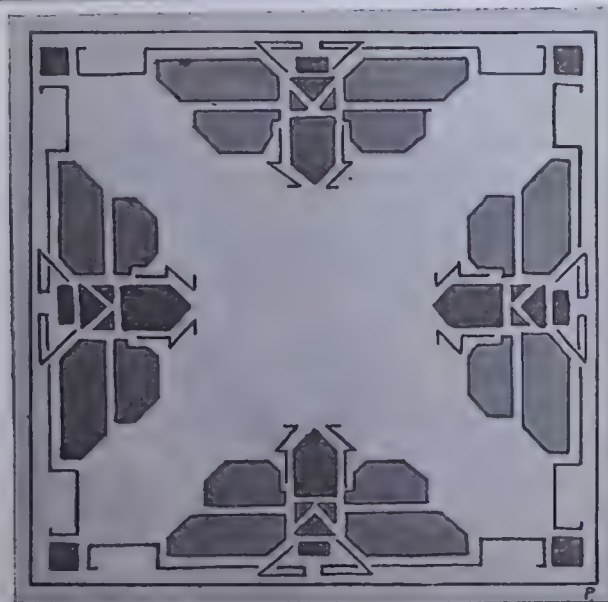
Monochrome  
 Blue No. 4-L  
 Blue  
 No. 3-M. G.  
 Blue  
 No. 2-H. D.



Contrasting  
 Harmony  
 Red Orange  
 No. 4-6  
 Blue Green  
 No. 1-M. G.  
 Green No. 1-G



Analogous  
 Harmony  
 Red Orange  
 No. 4-L.  
 Red  
 No. 1-M. G.  
 Red  
 No. 3-M. G.  
 Red  
 No. 3-H. D.  
 Black outlines.



## EXERCISE

Put designs of Problem IX (Border, Tile and Plate) into color, being guided with reference to the color scheme by the use of the articles and by the type of the design. Watch as before for the balance of the colors and for the general harmony, choosing the color schemes methodically from the charts as per suggestions in this and previous arguments. Submit two sets for criticism, showing in one a cool, and in one a warm color scheme, show as before a color analysis of each design, indicating the three qualities—Hue, value and degree of neutralization.





**SMALL BOWL**—Decoration, red bird and flowers; flat colors and enamels.  
**LARGE BOWL**—Design motif, cobeas; etched, treated with yellow green  
and white gold, green gold bronze and green lustre.  
**PLATE**—Etched gold; design, nasturtium.

## PROBLEM XVI

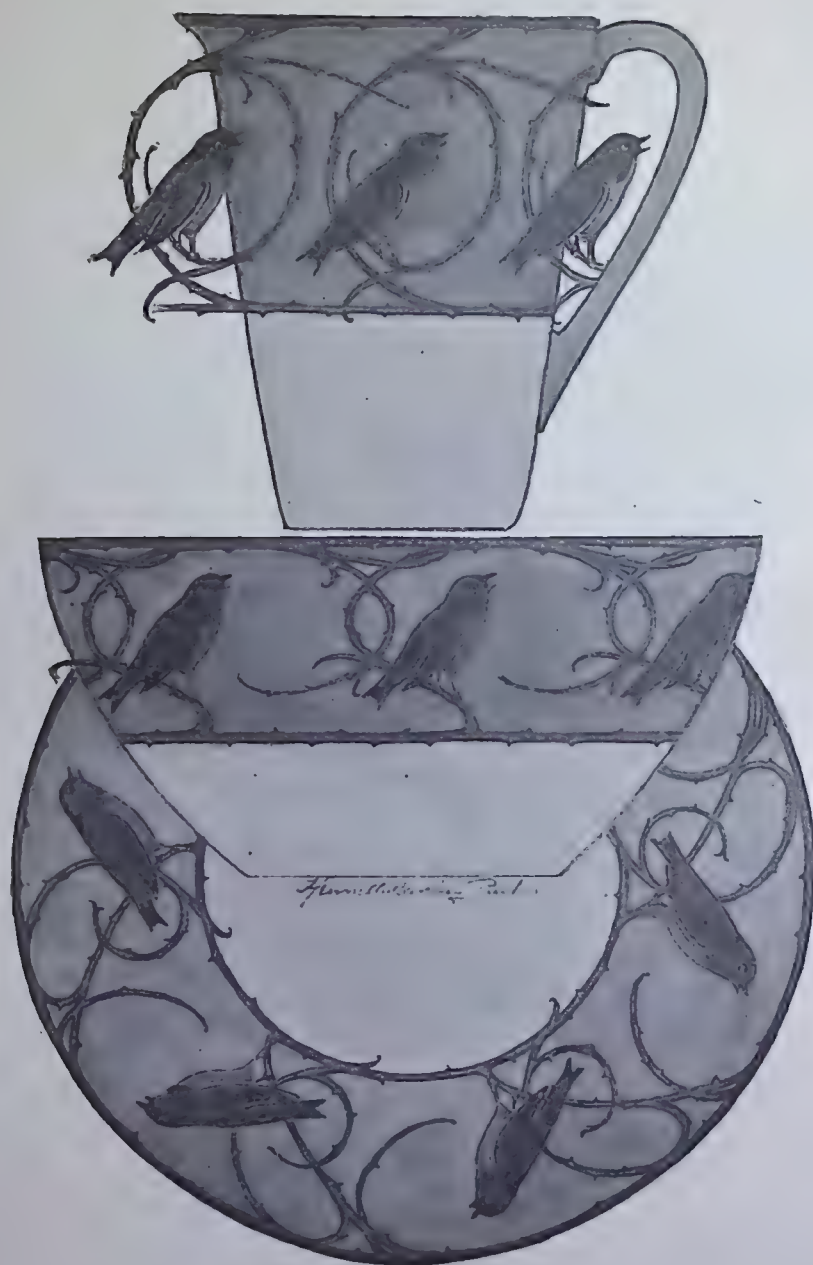
### COLOR HARMONY, APPLICATION (*Continued*)

"Appreciation of beautiful color grows by exercise and discrimination, just as naturally as fine perception of music or architecture. Each is the outlet for the expression of taste, a language which may be used clumsily or with skill."—*Munsell*.

LET us now return to the designs of Problem X, (Plate, Pitcher and Bowl). We have suggested the values of the colors by the neutral values shown. We have only to substitute color in the same values, selecting our Hues, Tints and Shades, which will, by their attractive force, correspond to the general balance of the grey scheme. This group is considered as a set, and will be so treated. If a *child's* set, we have a variety of schemes from which to choose, from the monochrome of Blue or Grey to a combination of bright cheery colors; the type of design will again determine this. If animals or units from toyland have been selected, we may exercise our love of color; if the motif be floral, we will be influenced by the one depicted. Blue Grey and Pale Yellow make a lovely combination for a child's set, also a scheme with bright touches of Scarlet and Green. The blue bird set (see illustration) is tinted a warm ivory, the handle and bands a soft blue grey, branches two values stronger, and birds blue with rose breasts.

If the set is intended for an adult, we will probably choose a quieter and daintier combination of colors with White or Ivory ground. In the latter case, the spotty effect—sometimes permissible in the decoration for children—is to be avoided.

Here is where our discipline in values will again appear. Keep in mind the two kinds of harmony—that gained by the use of colors closely related, and that of contrast. Cool backgrounds, as a rule, call for cool colors in the design and warm background tints for warm colors. Remember that we are to confine ourselves to the designs already constructed, as these have already been criticised as to *construction* and *values* and our problem now is that of *color harmony*. It is impossible,



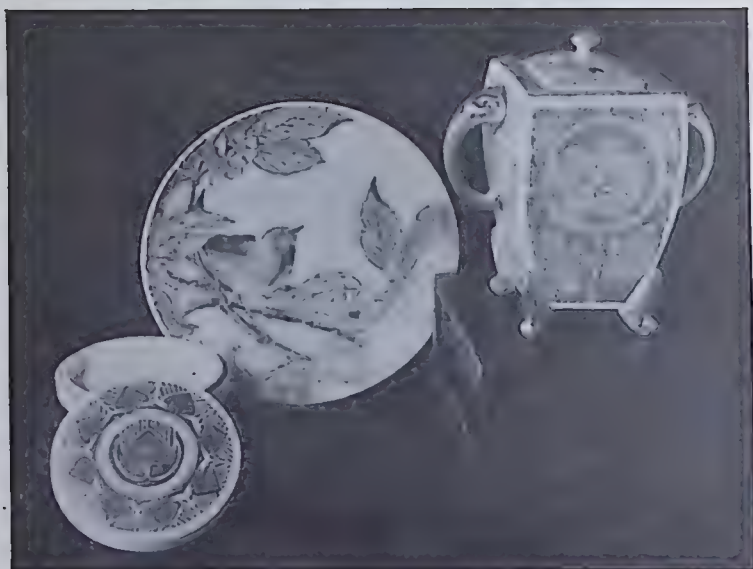
in a course of this kind, to do more than suggest possibilities. To limit the exercises too much narrows the understanding of the Problem; to allow too much liberty in the matter of selection and adaptation leaves the student all at sea, with nothing definite to cling to, so we have tried to choose a middle ground, hoping that the misunderstandings may all be cleared up by the criticisms and that a better understanding will result.

#### EXERCISE

Color designs of Problem X (Plate, Pitcher and Bowl) with reference to the use of the shapes and to the motifs already chosen. Do two sets under this Problem; one showing a cool and one a warm color scheme; one, a monochrome or showing close harmony and one the harmony of contrast. Watch carefully the balance of the colors and the general harmonious effect, as before, choosing the color schemes methodically from the charts and showing a color analysis, indicating the *Hue*, *Value* and *Chroma* in each.







**SATSUMA ROSE JAR**—Enamel decoration; motif, pink azaleas; ground, ivory.

**SATSUMA PLAQUE**—Bird and flowers; flat color, raised paste and enamels; ground, old ivory.

**SATSUMA BOX**—Enamel decoration; peacock feather motif; ivory ground.

## PROBLEM XVII

### COLOR HARMONY, APPLICATION (Continued)

"The poverty of color language tempts to a borrowing from the rich terminology of music. Musical terms, such as "pitch," "key," "note," "tone," "chord," "modulation," "nocturne" and "symphony," are frequently used in the description of color, serving by association to convey vague ideas . . . in the same way the term *color harmony* from association with musical harmony, presents to the mind an image of color arrangement, varied, yet well proportioned, grouped in orderly fashion, and agreeable to the eye . . . musical harmony explains itself in clear language . . . but the adequate terms of color harmony are yet to be worked out."—*Munsell*.

BEFORE going further with our application it would be well to consider some of these musical terms in the above quotation. What do they mean to us in connection with our color work? Take for instance the term "key." We often hear this term used in connection with a color scheme—"it was painted in a high key." This means that the colors used were pure as to chroma and light in value. In this connection it is well to divide our value scale into three registers, upper, middle, and lower register. The first four values, beginning with White, may be considered as the upper register. Color schemes using these values, if pure as to chroma, will be in a, "high key." The three middle values, beginning with low light, will constitute our middle register, and the four lower ones, beginning with high dark, our lower register. This division gives us a definite basis for mutual understanding. In the earlier problem we have stated that a *chord*, made up of notes in the same register, is more harmonious and more easily managed than one of notes widely separated,—so in color, our safety lies, at first, in using colors not too widely separated, avoiding the spectacular. Also color schemes in a *high key* become tiresome. "The mark of a colorist is ability to employ low chroma without impoverishing the color effect." We have already defined the terms *note* and *tone* in our earlier Problem. Let us try to get these definitions firmly fixed in the mind so that we may use them in their true sense.

For the practical application under this Problem we will color the designs of Problem XI—the vase forms. As in Problem XVI, the values have already been suggested by the neutral values shown. The abstract design gives us entire liberty as to our color scheme. This is one advantage of the abstract design or the design so formal as to have lost the necessity of considering the natural coloring of the motif. The character of the design will determine largely the strength of the color scheme—the key and general tone. The design of bold type

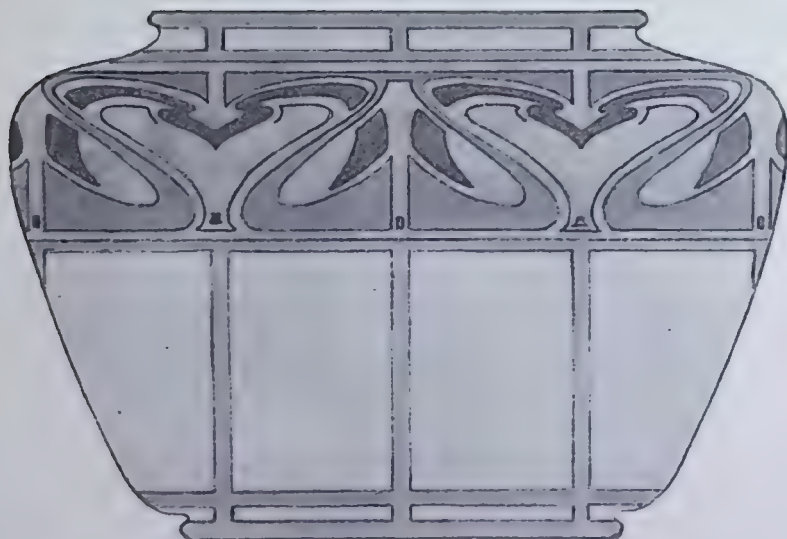


Plate XVII, Fig. 1

may be strong in color, while that of the more refined type should be correspondingly delicate in color. The abstract design shown in illustration (Figure 1) has a background of soft neutral yellow (yellow-orange, value, "light" chroma No. 4.) The decoration is in grey-green, dull blue and gold, the green being middle grey in value and chroma No. 2. The blue is low dark in value, chroma No. 2. The slender Greek vase (Fig. 2) with the decoration from the narcissus motif is in delicate tones of grey-green, light as to values which are confined to the upper register but of softened chroma. The background is a

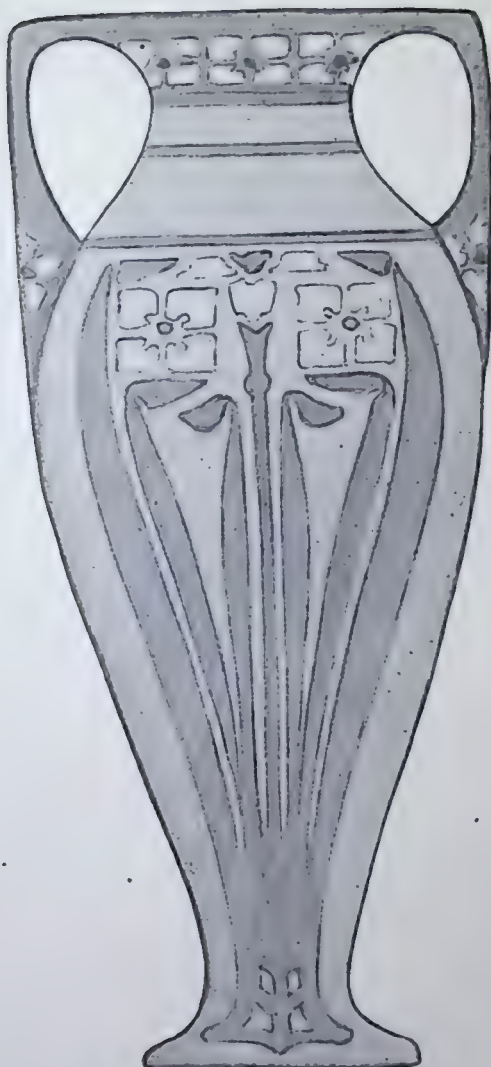


Plate XVII, Fig. 2



delicate tone of green, light in value, and neutralized three times. The leaves are low light as to value but neutralized once (chroma No. 2). The flowers are white with a touch of pure yellow in the center. There is no outline, the values themselves defining the design. In the low vase (Plate XII, Fig. 3)\*, the decoration of mountain ash, the background is a neutralized orange, (chroma No. 5, value low light). In the decoration the background spaces between the units are a lower tone of the same color. The leaves are grey-green (chroma No. 3, value middle grey). The berries are red-orange (chroma No. 1, value high dark). The path is of gold. The whole design outlined in black.

The low vase, the nasturtium decoration†, has a neutral background, yellow-orange No. 4, value light. The band behind the decoration is two tones lower in value and the decoration in tones of yellow, orange, red-orange and grey-green.

For an object such as a vase or jardiniere, which, because of its nature, becomes, as it were, a part of the color scheme of the room, it is usually best kept low in tone. The general tones of our interior decorations are, as more study is given to the subject, becoming more and more harmonious and we do not wish even our "articles of vertu" to jump at us as we enter a room, but would prefer to become aware of them gradually, to make their acquaintance one at a time. This is why the products of our best factories are so pleasing and practical; they are confined largely to the soft greens and browns, and the decorations, generally speaking, are low in tone. So while we do not feel hampered by this suggestion, it is one we will do well to note until we have gained sufficient technical skill and artistic knowledge to produce an object of such intrinsic worth as will place it above such consideration and in the class of "objects of Art."

#### EXERCISE

Put vase designs of Problem XI into color, choosing for the color schemes such combination (chords) as will best fit the type of the design and the size of the piece. Keep the background tones low in chroma, avoid strong contrasts; keep the

\* See page 67.

† See page 68.

color scheme simple, using from three to five colors only in each design; avoid sharp outlines and the use of too much gold, which, by the way, should be selected, as to shade, to harmonize with the colors of the design. Silver, white-gold, and green-gold harmonize with the cooler schemes, while yellow and red-gold are best with warm colors. The metals used are, of course, a part of the color scheme and should be selected as carefully as any of the colors. For objects of this nature, the matt colors will be found satisfactory for background work.



**TEAPOT**—Ivory ground; enamel decoration; circular unit, moths; Coalport green. Spout and panels, margarites, (white petals, yellow centers.)

**PLATE**—Etched gold; nasturtium design; center, ivory white.

**LARGE BOWL**—Satsuma; mountain ash berry design; enamels. Background, ivory white.

**SMALL BOWL**—Satsuma; pink flower unit; in enamels; background, ivory.

## PROBLEM XVIII

### COLOR HARMONY, APPLICATION

"Beauty in Life and Art is not accidental; it is an organic thing, having its own laws and consequences."—*Waller Crane*.

"*Harmony of Sound* is the study of the musician and *tuned colors* are the materials of the colorist . . . so must the art of the colorist have a scientific basis and a clear form of color notation. This will record the successes and failures of the past, and aid in a search, by contrast and analysis, for the fundamentals of color balance."—*Munsell*.

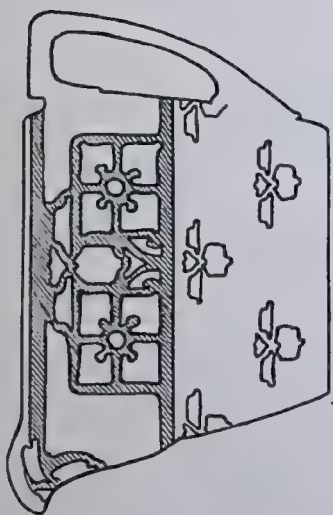
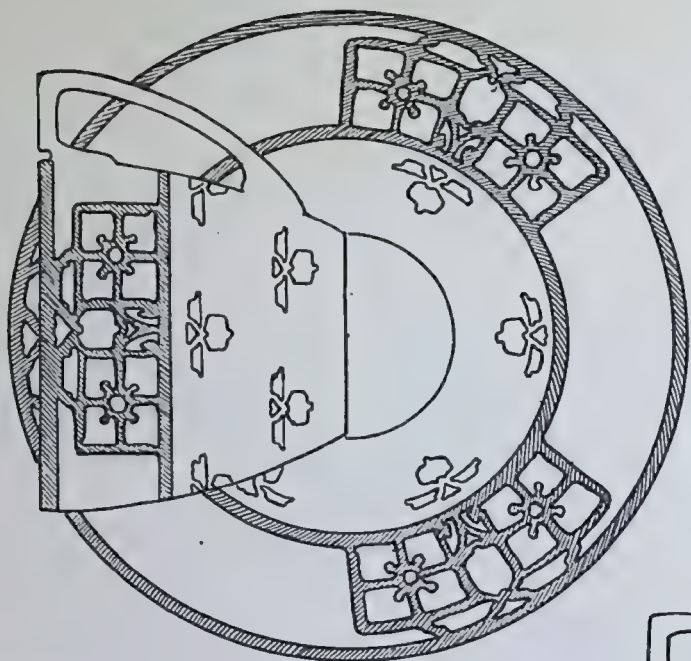
THIS being our final problem in the course, we will, before stating the exercises of this lesson, review the course by Problems as it has progressed. We have, I am sure, by this time, a clearer idea at least of the subject of design, the laws governing it, its relation to the other arts, and the system or method of procedure, without which no subject can be made clear.

We have learned that Decorative Art differs from Pictorial Art in that it deals with types, rather than accidents of nature; that it calls for a flat treatment and for regular arrangement of material in order to conform to space and not become obtrusive; that to be worthy of the name, a decoration must be in harmony with the shape and the purpose of the object decorated, that to know good decoration, to acquire good taste and discrimination, requires systematic training.

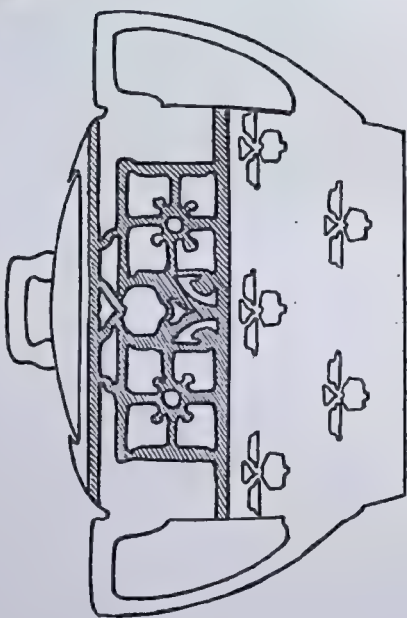
We have learned something of the system by which a decoration is developed and made one with the builded object. We have acknowledged our limitations and have tried to make the most of them, feeling that while we, as china decorators, cannot encompass the whole of Art, we, nevertheless, have our place, and that "Art rests upon a basis broad enough to encompass all of man's activities."

"No system of ornament can be definite and final, since such system, to be real and vital, must express the aesthetic impulse of those who create it, and since the direction of the aesthetic changes with every era." However, the underlying principles are forever the same.





Cover to Sugar Bowl.



Cover to Teapot



We began by defining these principles and in an elementary way, by the use of lines, tones and areas, demonstrating them in the construction of designs of different characteristics. Unfortunately, we do not make the shapes we decorate, so we began the study with the construction of design and worked from that point of view towards the application; then choosing our shapes, studied them with reference to the placing of the design, and endeavored in this way, by bringing the two into harmony, to produce an object of Art that should be a logical, consistent, finished product, showing one thought in shape and decoration. We have decorated china too long without giving to it this thoughtful study—without co-operation with the author of the forms but such haphazard ornament will soon be a thing of the past; having seen the light, we will, in this as in other things, be quick to put our theories into practice.

We have seen that the principles,—rhythm, balance and harmony—relate to line, shape, tone and color. We have line rhythm, tone rhythm, shape rhythm and color rhythm; line balance, tone balance, (as demonstrated in the neutral values,) and color balance, (depending on the strength as well as on the value of the color.) We have harmony of lines, of shapes, of tones and of color, so that every criticism is based on these three principles.

Are the lines in harmony with each other and with the boundary line? Is there a feeling of balance between space and mass? Is there a balance of tone? Is there a general feeling of harmony—of mutual dependence—of lines, tones and areas—a feeling of unity? Is there a lack of variety in space and mass, or is there too much variety, causing lack of unity—harmony? These are the points which form a basis of criticism for the teacher. These are the questions to ask yourself when studying your own efforts. In this way you may become your own critic, forming a judgment of your own, and that is the aim of this course, to leave the students less dependent, with a basis for judgment and an appreciation of the subject of design that will render their further efforts joyous and practical, and enable them to say with Robert Louis Stevenson "I know what pleasure is, for I have done good work."

"The delight in beauty is common to all and is merely a

matter of degree—not of kind.” Let us, by study and sincere effort, cultivate an appreciation, helping thereby to raise our craft to a position of dignity in the Art World.

Industrial Art has come into its own, and in this practical age, the article that combines use with beauty, holds for us a double interest. We are forming the taste of the next generation by our association with things artistic. Let us see that our study be not superficial; that we look for reasons and methods as well as for effects; that we work for *sincerity* rather than *novelty*.

It is presupposed that the student already has, or expects to acquire, the technical knowledge of this craft in the workshop or the studio. Without this practice, these lessons are futile. We can define the elementary principles on paper and can learn the value of orderly thought, but the methods and technique must be learned by actual contact with the materials. As to the Problems herein stated, we have been able only to touch upon each, but the work may be carried on and made practical through the criticisms as arranged for in a regular course by correspondence, and if the suggestions thus gained are carried out in the practical application—in the actual work of the studio—you will have gained tremendously in helping to bring about the results for which we have so long been working.

The last fifteen years have been ones of steady progress. Our exhibitions are an education and a delight, and the student of to-day has inspiration on every hand and knowledge is easily gained. Let us not be satisfied with imitation even of the best, but like those successful ones, go straight to the root of the subject and gain for ourselves the ability to create something that shall express ourselves, believing with Henry Turner Bailey that, “Of the Creative Artist it may always be said, ‘even the winds and the waves obey him;’ he orders everything after the counsel of his own will for the sake of perfect harmony.”

#### EXERCISE

For our final exercises we will put the applied designs of Problem XII into color. Here we are reminded that we are coloring articles for use, presumably on a white background (the



tablecloth) and will try to keep our color schemes delicate and in close harmony. Refer often to the chart for shades and tints. Show the analysis of color schemes under each piece, indicating Hue, Chroma and Value as before.

There is no limit to the palette of the china decorator. The greatest trouble and the thing that confuses us most is the enormous number of colors on the market; the variety of names, meaningless and ludicrous, of the different makes of colors, shades and tints, differing in name only. One may by the use of the chart and experiment with colors at hand, form one's own palette and one's own judgment and not be confused by the vast supply on the market.

Students should make their own sample plates, testing colors, until they have approximated the Hues, Shades and Tints as shown in the chart. They will then be equipped with a china palette that will serve their every need. The names given to the mineral colors matter little. The important thing is to know the fundamental colors and how from them the endless combinations of shades and tints are produced. This is not so easy to determine with the mineral colors as with those of water or oil, but students may, by experiment with colors already prepared and by mixing for themselves, secure a definite palette that will render them independent. Time spent in these experiments is time gained and will add seventy-five per cent. to the efficiency and independence of the worker. Sincere students cannot pursue such a course as is here outlined without gaining at least a measure of independence and a judgment and appreciation which will be reflected in their work.

Work for the work's sake; sing or paint or carve  
The thing thou lovest, tho the body starve.  
Who works for glory misses oft the goal:  
Who works for money coins his very soul:  
Work for the work's sake thou and it may be  
That these things will be added unto thee.

—*Kenyon Cox*









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